aiwa

MD/CD STEREO SYSTEM

XR-MD85

OPERATING INSTRUCTIONS

En (English)

R·D·S EON

MiniDisc

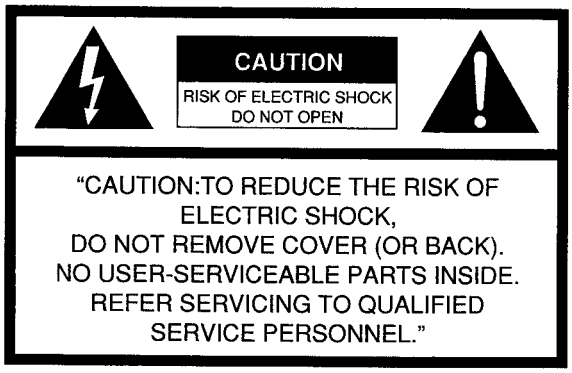
COMPACT disc DIGITAL AUDIO

88-CL2-906-11
980701BYK-H-7

EZ

WARNING

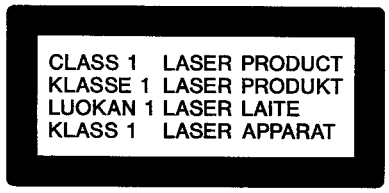
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
"CAUTION:TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL."

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This compact disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the exterior.



CAUTION!

Invisible laser radiation when open and interlocks defeated. Avoid exposure to beam.

ADVARSEL!
Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laitteen käyttäminen muulla kuin tässä käyttöohjeessaa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteiylle.

VARNING!
Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsätta för osnylig laser-strålning, som överskrider gränsen för laserklass 1.

PRECAUTIONS

Read the Operating Instructions carefully and completely before operating the unit. Be sure to keep the Operating Instructions for future reference. All warnings and cautions in the Operating Instructions and on the unit should be strictly followed, as well as the safety suggestions below.

Installation

1 **Water and moisture** – Do not use this unit near water, such as near a bath, sink, swimming pool, or the like.
2 **Heat** – Do not use this unit near sources of heat, including heating vents, stoves, or other appliances that generate heat. It also should not be placed in temperatures less than 5°C or greater than 35°C.
3 **Mounting surface** – Place the unit on a flat, even surface.
4 **Ventilation** – The unit should be situated with adequate space around it so that proper heat ventilation is assured. Allow 10 cm clearance from the rear and the top of the unit, and 5 cm from the each side.
   - Do not place the unit on a bed, rug, or similar surface that may block the ventilation openings.
   - Do not install the unit in a bookcase, cabinet, or airtight rack where ventilation may be impeded.
5 **Objects and liquid entry** – Take care that objects or liquids do not get inside the unit through the ventilation openings.
6 **Carts and stands** – When placed or mounted on a stand or cart, the unit should be moved with care.
   Quick stops, excessive force, and uneven surfaces may cause the unit or cart to overturn or fall.
7 **Condensation** – Moisture may form on the CD pickup lens when:
   - The unit is moved from a cold spot to a warm spot
   - The heating system has just been turned on
   - The unit is used in a very humid room
   - The unit is cooled by an air conditioner
   When this unit has condensation inside, it may not function normally. Should this occur, leave the unit for a few hours, then try to operate again.
8 **Wall or ceiling mounting** – The unit should not be mounted on a wall or ceiling, unless specified in the Operating Instructions.

Electric Power

1 **Power sources** – Connect this unit only to power sources specified in the Operating Instructions, and as marked on the unit.
2 **AC power cord**
   - When disconnecting the AC power cord, pull it out by the AC power plug. Do not pull the cord itself.
   - Never handle the AC power plug with wet hands, as this could result in fire or shock.
   - Power cords should be firmly secured to avoid being severely bent, pinched, or walked upon. Pay particular attention to the cord from the unit to the power socket.
   - Avoid overloading AC power plugs and extension cords beyond their capacity, as this could result in fire or shock.
3 **When not in use** – Unplug the AC power cord from the AC outlet if the unit will not be used for several months or more. When the cord is plugged in, a small amount of current continues to flow to the unit, even when the power is turned off.

Maintenance

Clean the unit only as recommended in the Operating Instructions.

Damage Requiring Service

Have the units serviced by a qualified service technician if:
- The AC power cord or plug has been damaged
- Foreign objects or liquid have got inside the unit
- The unit has been exposed to rain or water
- The unit does not seem to operate normally
- The unit exhibits a marked change in performance
- The unit has been dropped, or the cabinet has been damaged

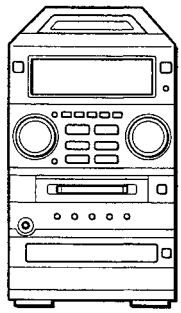
DO NOT ATTEMPT TO SERVICE THE UNIT YOURSELF.

Welcome to the Aiwa Stereo System

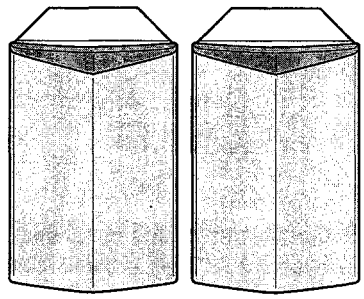
Congratulations on your purchase of an Aiwa Stereo System. To optimize the performance of this system, please take the time to read through these Operating Instructions and become familiar with the operating procedures.

Check your system and accessories

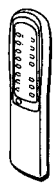
CX-LMD85
MD/CD stereo cassette receiver



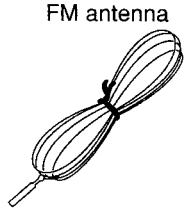
SX-LM85 (L, R)
Speakers



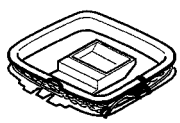
Remote control



FM antenna



MW/LW antenna



Operating Instructions, etc.

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CONNECTIONS

Before connecting the AC cord

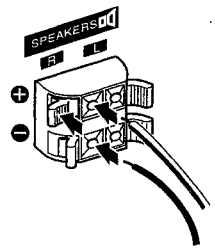
The rated voltage of your unit shown on the rear panel is 230 V AC. Check that the rated voltage shown on the rear panel matches your local voltage.

IMPORTANT

- Connect the speakers, antennas, and all optional equipment first. Then connect the AC cord in the end.
- There are no differences between the front speakers. Both speakers can be connected as L (Left) or R (Right).

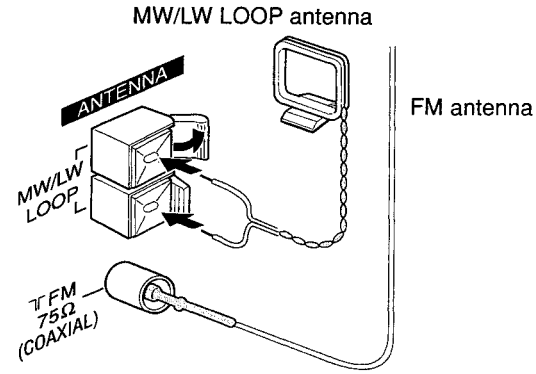
1 Connect the speaker cords to the main unit.

The cords with the white stripes should be connected to the ⊕ terminals and the other cords to the ⊖ terminals.



2 Connect the supplied antennas.

Connect the FM antenna to the FM 75 Ω terminal and the MW/LW antenna to the MW/LW LOOP terminals.

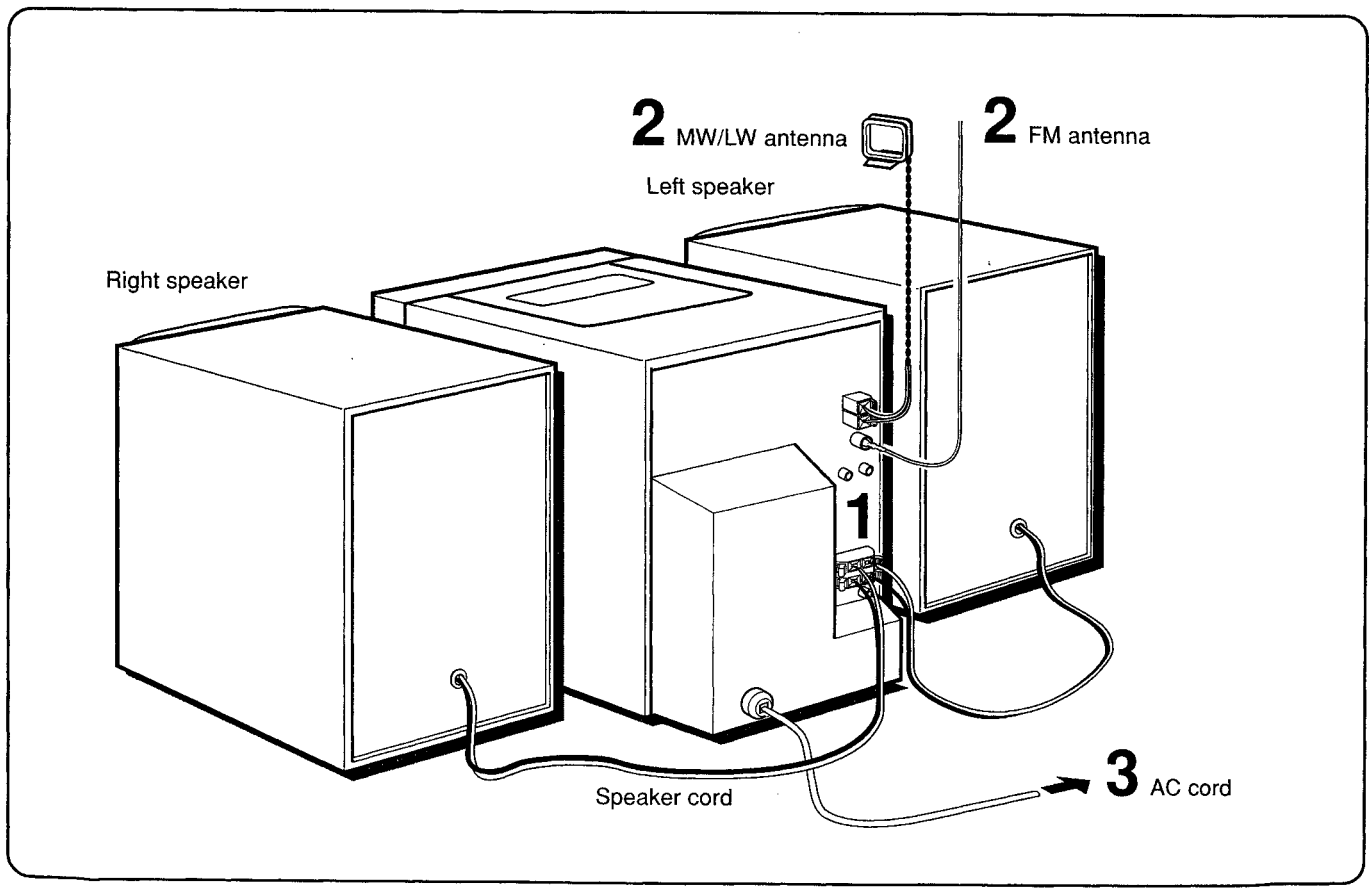


3 Connect the AC cord to an AC outlet.

When the AC cord is connected for the first time, the display window demonstrates the functions of the unit. When the power is turned on, the demonstration display is overridden by the operation display. When the power is turned off, the demonstration mode is restored.

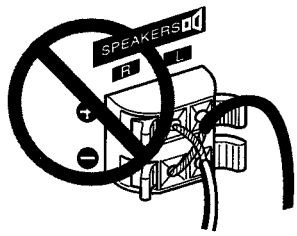
To cancel the demonstration

Press the DEMO/RDS button, or turn the MULTI JOG dial right or left while the power is on.
To activate, press the DEMO/RDS button again.



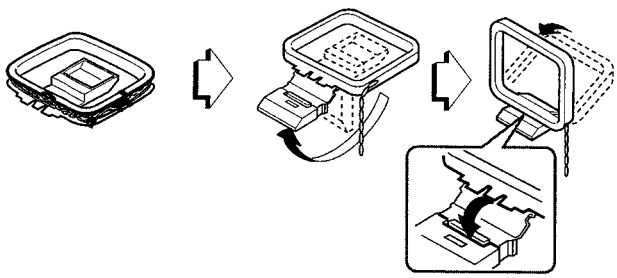
NOTE

Do not short-circuit the ⊕ and ⊖ speaker cord leads; otherwise the sound may become inaudible or the unit may be turned off. If this happens, disconnect the AC cord from the AC outlet and re-connect the speaker cord correctly. Connect then the AC cord and turn the unit on again.



To stand the MW/LW antenna on a surface

Fix the claw to the slot.



To position the antennas

FM unipolar antenna:

Extend fully and position for the best possible reception. This antenna is of an instant type, so the use of an outdoor antenna is recommended.

MW/LW loop antenna:

Position to find the best direction.

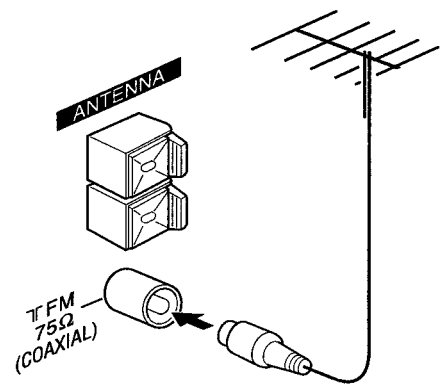
NOTE

- Do not connect any speakers to the unit other than the supplied ones.
- Do not leave objects generating magnetism near the speakers.
- Do not bring the FM antenna near metal objects or curtain rails.
- Do not bring the MW/LW antenna near other optional equipment, the stereo system itself, the AC cord or speaker cords, since noise will be picked up.
- Do not unwind the MW/LW antenna wire.

CONNECTING AN OUTDOOR ANTENNA

For better FM reception, use of an outdoor antenna is recommended.

Connect the outdoor antenna to the FM 75 Ω terminal.

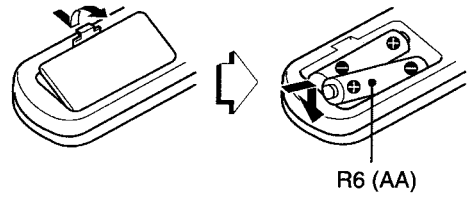


To connect other optional equipment → page 33.

REMOTE CONTROL

Inserting batteries

Detach the battery cover on the rear of the remote control and insert two R6 (size AA) batteries.



When to replace the batteries

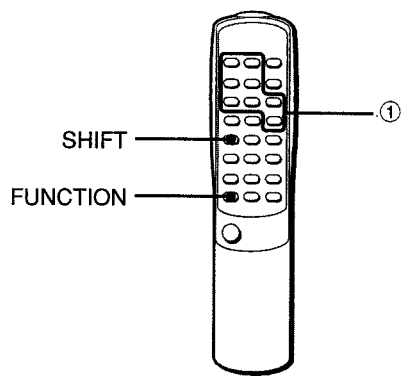
The maximum operational distance between the remote control and the sensor on the main unit should be approximately 5 meters. When this distance decreases, replace the batteries with new ones.

Using the remote control

The instructions in this manual refer mainly to the buttons on the main unit. Buttons on the remote control with the same names as those on the main unit can be used as well.

NOTE

- The ▶ button on the remote control has the same function as that of the ◀▶ button on the unit.
- If the unit is not going to be used for an extended period of time, remove the batteries to prevent possible electrolyte leakage.
- The remote control may not operate correctly when:
  - The line of sight between the remote control and the remote sensor on the right top of the front panel (see the illustration of "BEFORE OPERATION") is exposed to intense light, such as direct sunlight.
  - Other remote controls are used nearby (television, etc.)



To use the SHIFT button

Buttons ① have two different functions. One of the functions is indicated on the button, and the other on the plate above the button.

To use the function on the button, simply press the button.

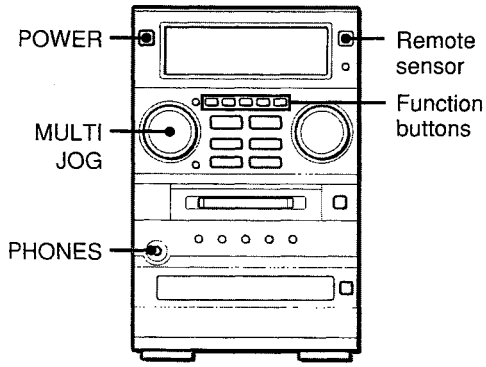
To use the function on the plate above the button, press the button while pressing the SHIFT button.

To use the FUNCTION button

The FUNCTION button substitutes for the function buttons (TAPE, TUNER, VIDEO/AUX, CD, MD) on the main unit. Each time the FUNCTION button is pressed while power is on, the next function is selected cyclically.

En

BEFORE OPERATION



To turn the unit on
Press one of the function buttons (TAPE, TUNER, VIDEO/AUX, CD, MD).
Playback of the inserted disc or tape begins, or the previously tuned station is received (Direct Play Function).
The POWER button is also available.
The disc compartment may open and close to reset the unit.

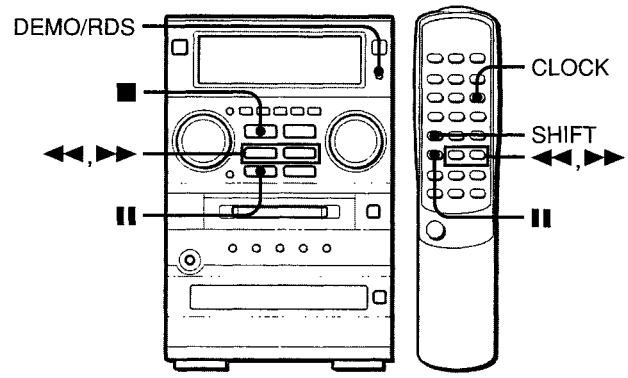
Illumination guides
Whenever the AC cord is connected or one of the function buttons is pressed, the buttons for that operation light up or flash.
Example: When the AC cord is connected, the ▮▮ button flashes as a guide to setting the current time.

After use
Press the POWER button to turn off the power. The display changes to the clock or the demonstration display.

MULTI JOG dial
The MULTI JOG dial can be used when selecting a radio station or skipping to the beginning of a CD track and an MD track. It can also be used with the MODE button as a convenient dial to adjust the sound quality and turn Dolby NR on or off. Refer to pages 6, 8, 11, 13 and 16 for details.

Using the headphones
Connect headphones to the PHONES jack with a stereo mini plug (ø3.5 mm).
No sound is output from the speakers while the headphones are plugged in.

SETTING THE CLOCK



1 **Press the CLOCK button while pressing the SHIFT button on the remote control.**

2 **Within 4 seconds, press the ▮▮ button.**
The hour flashes.

To switch to the 24-hour standard, press the ■ button.
To restore the 12-hour standard, press the ■ button again.

3 **Press the ◀◀ or ▶▶ button or turn the MULTI JOG dial to designate the hour.**

4 **Press the ▮▮ button to set the hour.**
The hour stops flashing and the minute starts flashing.

5 **Press the ◀◀ or ▶▶ button or turn the MULTI JOG dial to designate the minute.**

6 **Press the ▮▮ button to set the minute and complete setting.**
The minute stops flashing on the display and the clock starts from 00 seconds.

To set the clock without the remote control

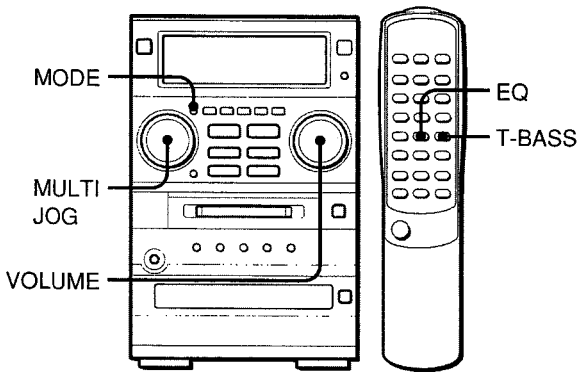
1 **Turn off the unit if the unit is powered. Then, if the demonstration display appears, press the DEMO/RDS button to cancel it.**

2 **Press the ▮▮ button twice so that the hour flashes.**
Carry out then the steps 3 to 6 above.

To display the current time
Press the CLOCK button while pressing the SHIFT button on the remote control. The time is displayed for 4 seconds.
However, the time cannot be displayed during recording.

If the clock display flashes while the power is off
This is caused by a power interruption. The current time needs to be reset.
If power is interrupted for a certain period of time, all settings stored in memory after purchase need to be reset.

ADJUSTING THE SOUND

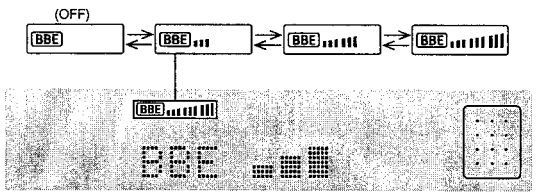


ADJUSTING THE VOLUME

Turn the VOLUME control on the main unit, or press the VOLUME buttons on the remote control.
The volume level is shown on the display for 4 seconds. It can be set from 0 (minimum) to 30, and then MAX (maximum).
The volume remains memorized even after the power is turned off. However, if the power is turned off when the volume is set to more than 21, it is automatically set to 21 the next time the power is turned on.

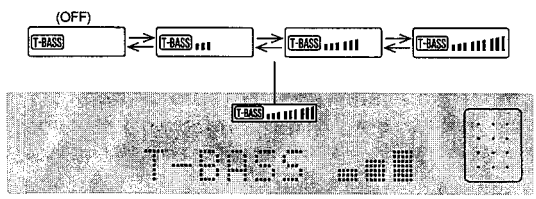
ENHANCING THE TREBLE SOUND

The BBE system enhances the clarity of high-frequency sound.
Press the MODE button repeatedly until "BBE" appears on the display. Then, **turn the MULTI JOG dial** right or left to select one of the three levels, or off position within 10 seconds. The BBE level does not change cyclically.



ENHANCING THE BASS SOUND

The T-BASS system enhances the realism of low-frequency sound.
Press the MODE button repeatedly until "T-BASS" appears on the display. Then, **turn the MULTI JOG dial** right or left to select one of the three levels, or off position within 10 seconds. The T-BASS level does not change cyclically.



When using the remote control, press the T-BASS button repeatedly.

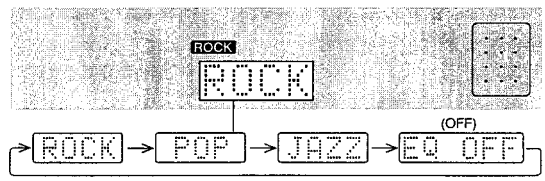
NOTE

Low frequency sound may be distorted when the T-BASS system is used for a disc or tape in which low frequency sound is originally emphasized. In this case, cancel the T-BASS system.

EQ (EQUALIZER)

This unit provides the following three different kinds.
ROCK: Powerful sound emphasizing treble and bass
POP: More presence in the vocals and midrange
JAZZ: Accented lower frequencies for jazz-type music

Press the MODE button repeatedly until "EQ OFF" appears on the display. Then, **turn the MULTI JOG dial** right or left to select one of the three kinds, or off position within 10 seconds.



When using the remote control, press the EQ button repeatedly.

SOUND ADJUSTMENT DURING RECORDING

The output volume and tone of the speakers or headphones may be freely varied without affecting the level of the recording.

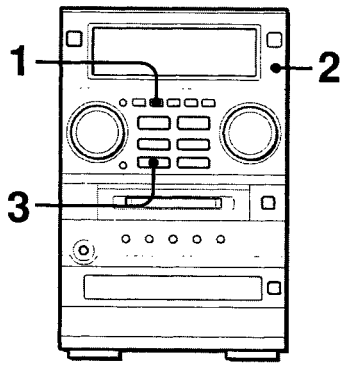
PRESETTING STATIONS

The unit can store a total of 32 preset stations. (Each band has a maximum of 20 available preset stations.) Presetting allows you to tune in to a station directly. Stations are assigned preset numbers, beginning from 1 in consecutive order for each band (FM, MW and LW).

Automatic presetting:
This unit has a function for reception of RDS*1 (Radio Data System) and other stations.
FM RDS stations take priority over other FM stations if there are more than 20 receivable stations.
Manual presetting:
You can select stations to be preset from all the bands.

PRESETTING AUTOMATICALLY

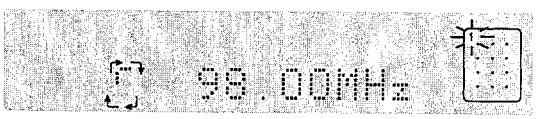
The tuner scans through the receivable frequency range and stores stations automatically.



1 Press the TUNER/BAND button.
An FM station is displayed.

2 Keep the DEMO/RDS button pressed for 4 seconds until "AUTO PRESET" runs through the display.
The ▮▮ button flashes for 4 seconds.

3 Press the ▮▮ button while it flashes.
The tuner searches for a station, beginning with the FM band. When a tuned stations is stored, the selected preset number flashes on the display.

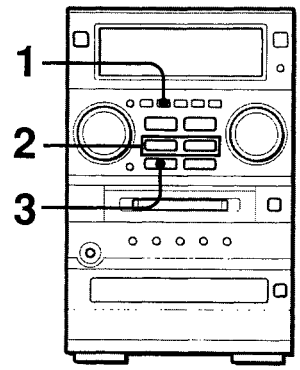


The search continues on the MW and LW bands as long as the preset numbers are available.
When automatic presetting has been completed, the display returns to the first preset station.

When the tuner detects identical RDS stations with alternative frequencies*2
Only the station with the stronger signal is stored.
Before storing an RDS station, the tuner checks first whether the same stations on the other frequencies are present, and stores the station with the best reception.

NOTE
When presetting stations automatically, the same RDS stations on other frequencies may be stored. In this case, clear the preset station with weaker signals.

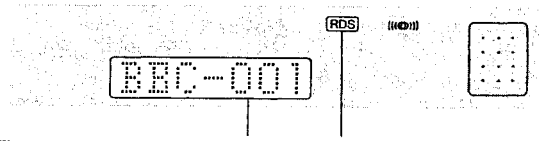
PRESETTING MANUALLY



1 Press the TUNER/BAND button repeatedly to select the band.

FM → MW → LW

2 Press the ◀◀ or ▶▶ button to select a station.
Each time the button is pressed, the frequency changes.
ⓐ When tuning in to an FM RDS station
After TUNE or the display goes out, the Program Service station name (PS*3) is displayed and RDS lights up.



The Program Service station name (PS) — RDS

ⓑ When tuning in to other stations
After TUNE on the display goes out, the band is displayed.

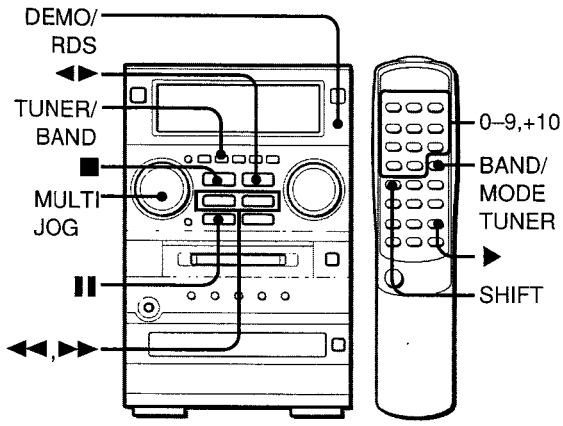
• During FM stereo reception, ((◉)) lights.

3 Press the ▮▮ button to store the station.
The assigned preset number flashes.

4 Repeat steps 1 to 3 to store the stations.
The next station will not be stored if a total of 32 preset stations for all the bands or a total of 20 preset stations for one band have already been stored.

To search for a station quickly (Auto Search)
Keep the ◀◀ or ▶▶ button pressed until the tuner starts searching for a station. After tuning in to a station, the search stops.
To stop the Auto Search manually, press the ◀◀ or ▶▶ button.
• The Auto Search may not stop at stations with very weak signals.

RECEIVING STATIONS BY PRESET NUMBERS



1 Press the TUNER/BAND button to select a band.

2 Press the numbered buttons on the remote control to select a preset number.

Example:
To select preset number 15, press the +10 and 5 buttons.
To select preset number 10, press the +10 and 0 buttons.

Other methods to tune in to a preset station

Press the TUNER/BAND button to select a band.
Then follow any one of the methods described below to select a station.

- Press the ◄► button repeatedly.
- Press the ► button on the remote control repeatedly.
  Each time the button is pressed, station with the next higher number is selected.
- Turn the MULTI JOG dial.
  Turning the dial right selects the next higher number. Turning it left selects the next lower number.

To clear a preset station

Select the preset number of the station to be cleared. Then, press the ■ button, and press the II button within 4 seconds. The preset numbers of all other stations in the band with higher numbers are also decreased by one.

To tune in to a station which is not preset

Press the TUNER/BAND button to select a band, and press the ◄◄ or ►► button to select a station.

To change the display

When the Program Service station name (PS) is displayed, press the DEMO/RDS button to display the band and frequency of the station currently received. The Program Service name is restored after 10 seconds.

To play a tuned station when the power is off (Direct Play Function)

Press the TUNER/BAND button. The power is turned on and the tuned station is played.

When an FM stereo broadcast contains noise

Press the BAND/MODE TUNER button on the remote control while pressing the SHIFT button to display MONO.

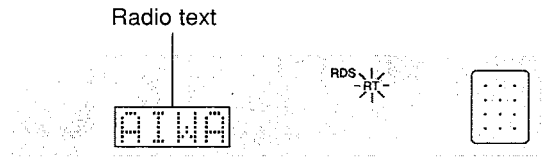
Noise is reduced, although reception is monaural.
To restore stereo reception, press the button so that MONO indicator goes out.

NOTE

RDS functions may not work correctly if the RDS transmission data from the station contains too much interference or the reception signal is too weak.

To display radio text (RT*4) during RDS reception

Press the DEMO/RDS button repeatedly until "RT" flashes on the display; if the tuned station is transmitting RT codes, text appears on the display. If the station is not transmitting RT codes, however, "RT" does not flash.



To return to the normal display, press the DEMO/RDS button repeatedly until the desired display is restored.

*1 **RDS**
Today many stations transmit so-called RDS (Radio Data System) codes that contain a variety of additional information along with regular sound signals.

*2 **Identical RDS stations with alternative frequencies (AF)**
This is a list of alternative frequencies that gives information on the various transmitters broadcasting the same program in the same reception area. It enables receivers equipped with memory to store the list, to reduce the time needed for switching to another transmitter.

*3 **Program Service station name (PS)**
This is a name consisting of not more than 8 alphanumeric characters, which is displayed in order to inform listeners about the program service being broadcast by the radio station.
Example: BBC 1

Characters that can be displayed

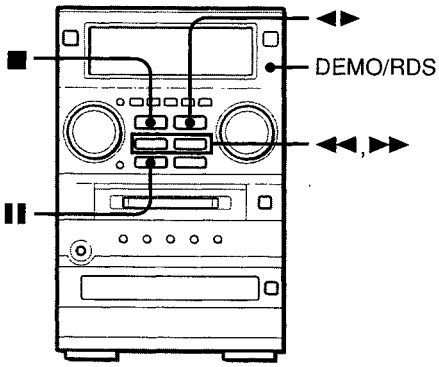
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
0 1 2 3 4 5 6 7 8 9 < > ? " ' * − + / = @ [ ] . , _

If a character transmitted by the broadcast is not applicable to receivers, a blank space is inserted.

*4 **Radio text (RT)**
Information such as the cast list of a play or the title of a song is shown on the display.

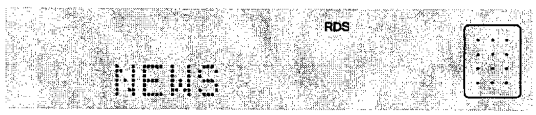
SEARCHING WITH THE HELP OF RDS CODES

Each RDS station identifies the type of program (PTY*5) which it is currently broadcasting. You can specify a PTY so that the unit can automatically detect a suitable station from the preset stations.
In addition, the EON*6 (Enhanced Other Networks) service works in some areas, so that searching is much faster.



TO DISPLAY THE PTY

During RDS reception, press the DEMO/RDS button repeatedly until PTY is displayed.



The PTY is displayed for 10 seconds.

Programs are classified as follows:

TRAFFIC, NEWS, AFFAIRS (current affairs), INFO (information), SPORT, EDUCATE (education), DRAMA, CULTURE, SCIENCE, VARIED, POP M (pop music), ROCK M (rock music), M.O.R.M (middle of the road music), LIGHT M (light classical), CLASSICS (serious classical), OTHER M (other music), WEATHER, FINANCE, CHILDREN (children's programmes), SOCIALA (social affairs), RELIGION, PHONE IN, TRAVEL, HOBBIES, JAZZ (jazz music), COUNTRY (contry music), NATION M (national music), OLDIES (oldies music), FOLK M (folk music), DOCUMENT (documentary), TEST (alarm test), ALARM!

NOTE

- If program type information is not being transmitted, NO PTY is displayed.
- If undefined program type information is being transmitted, UNDEFINE is displayed.
- The unit identifies TRAFFIC with one of the program types.

TO SEARCH FOR A SPECIFIED PTY

1 **Press the DEMO/RDS button repeatedly until the program type of the currently tuned station is displayed.**

2 **Within 10 seconds, press the ◄◄ or ►► button or turn the MULTI JOG dial to select a program type.**

3 **Within 10 seconds, press the ◄► button.**
The unit automatically checks all preset stations. When a suitable station is identified, the station will be selected.

EON service for the PTY search
When EON service works to transmit PTY, a suitable station is detected without checking every preset station. When a station transmits EON information, it takes about 5 to 30 seconds for the unit to decode the EON information. After decoding the information, EON lights up on the display.

When a station is not found
"NOT FOUND" is displayed and the unit returns to the previous station.

When the TRAFFIC program type is selected
"TRAFFIC" is displayed and the unit searches for a station transmitting a TP*7 code.
However, the tuned station may not be broadcasting a traffic announcement currently. Wait for a while. The tuned station broadcasts traffic information regularly and a traffic announcement will be made.

EON SEARCH

During FM reception, the unit switches to radio programs with the specified PTY automatically as soon as they begin.

1 **Press the DEMO/RDS button repeatedly until the program type of the currently tuned station is displayed.**

2 **Within 10 seconds, press the ◄◄ or ►► button to select a program type.**

3 **Within 10 seconds, press the II button.**
"EON" lights up for 3 seconds, then starts flashing, indicating that the unit enters the EON search standby mode.
When a radio program with the specified PTY in another radio station begins, it interrupts the currently receiving radio program and the radio program with the specified PTY is heard.
At this time, "EON" flashes rapidly.
At the end of the radio program with the specified PTY, the previous FM radio station is restored.
- The EON search standby mode remains active until it is cancelled even if the power is turned off.

To restore the previous FM station during reception of the radio program with the specified PTY
Press the ■ button.
The EON search standby mode is also cancelled.

To cancel the EON search standby mode
Press the DEMO/RDS button repeatedly so that the program type display appears. Then press the ■ button.
While "EON PTY" and the program type are displayed alternately, press the II button.
"EON OFF" is displayed and the EON search standby mode is cancelled.

NOTE

The EON search function does not work when:
- FM stations are not preset.
- The signals of stations with the specified PTY are weak.

OTHER FUNCTIONS OF RDS CODES

Auto EQ function

The equalization curve is switched automatically to match the music program type of an RDS station.

To activate the auto EQ function, press the DEMO/RDS button repeatedly until "A-EQ OFF" appears on the display.
Then turn the MULTI JOG dial right or left so that "A-EQ ON" is displayed.
To cancel, repeat the above operation so that "A-EQ OFF" is displayed.

The equalizer of this unit corresponding to PTY:

Equalizer of this unit	PTY
ROCK	ROCK M
POP	POP M, COUNTRY, NATION M, OLDIES
JAZZ	CLASSICS, LIGHT M, JAZZ, FOLK M
OFF	others

The selected equalizer can be changed to suit your preference by pressing the EQ button on the remote control or using the MODE button and the MULTI JOG dial (as described on page 6).
When you change the equalizer manually, the auto EQ function is deactivated.

Clock-time (CT*8)

The CT function provides the unit with information about the local time. The CT function works whenever a CT station is received.

If you have not set the clock (the clock flashes on the display), the current time is set automatically by tuning in to an RDS station.
If no RDS station is preset, keep the ◄◄ or ►► button pressed until RDS lights up.

If the clock does not agree with the broadcast time, an RDS signal will update the clock time on the hour every hour.

*5 **Program type identification (PTY)**
PTY allows selection of listening by one of 15 or more program types rather than by a station.

*6 **Enhanced other networks (EON) information**
EON information gives the receiver a cross reference to other stations and allows the receiver to switch from the currently tuned station to another RDS station.

*7 **Traffic program identification (TP)**
This is a code which informs the receiver that a tuned station regularly broadcasts traffic information.

*8 **Clock-time (CT)**
CT function provides an accurate clock signal which is self adjusting to time zones and seasonal time changes.

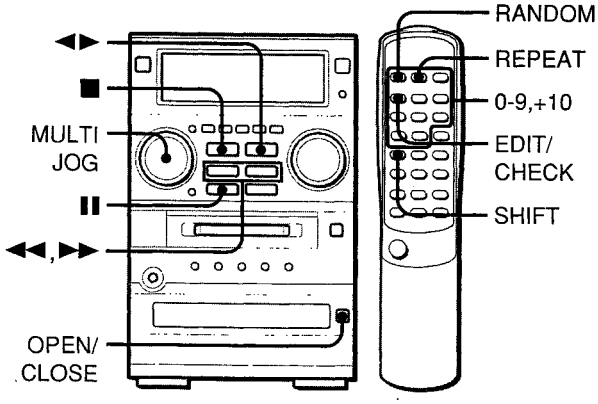
To change the MW tuning interval

The default setting of the MW tuning interval is 9 kHz/step. If you use the unit in an area where the frequency allocation system is 10 kHz/step, change the tuning interval.
While pressing the TUNER/BAND button, press the POWER button.
To reset the interval, repeat this procedure.

NOTE

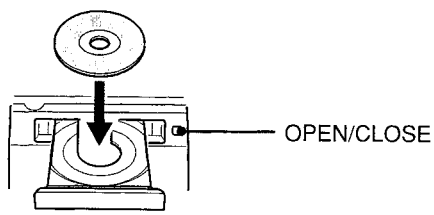
When the MW tuning interval is changed, all preset stations are cleared. The preset stations have to be set again.

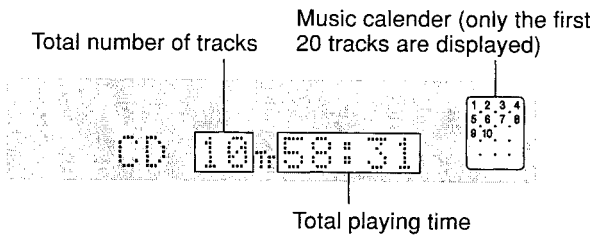
OPERATION



LOADING A DISC

Press the CD button, then press the OPEN/CLOSE button to open the disc compartment. Load a disc with the label side up and close the disc compartment.



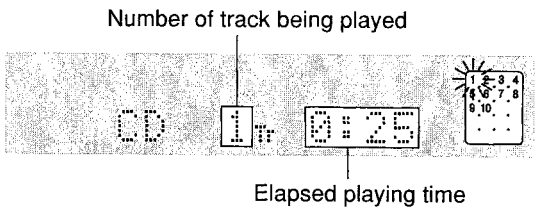


PLAYING A DISC

Load a disc.

Press the ◄► button.

Play begins with the first track.



To stop play, press the ■ button.
To pause play, press the II button. To resume play, press again.
To search for a particular point during playback, keep the ◄◄ or ►► button pressed and release the button at the desired point.
To skip to the beginning of a track during playback, press the ◄◄ or ►► button repeatedly or turn the MULTI JOG dial. The unit skips forward through the tracks when turning it right, and skips back when turning it left.
To remove the disc, press the OPEN/CLOSE button.

To start play when the power is off (Direct Play Function)

Press the CD button. The power is turned on and play of the loaded disc begins.
To replace the disc before play, press the OPEN/CLOSE button to open the disc compartment.

To check the remaining time

Press the EDIT/CHECK button while pressing the SHIFT button on the remote control during play. The amount of time remaining until all tracks finish playing is displayed. To restore the play time display, repeat the above.

Selecting a track with the remote control

Press the numbered buttons and the +10 button to select a track.
Example:
To select the 25th track, press the +10, +10 and 5 buttons.
To select the 10th track, press the +10 and 0 buttons.
The selected track starts to play and play continues to the end of that disc.

NOTE

- Do not use irregular shape CDs (example: heart-shaped, octagonal ones). It may result in malfunction.
- When loading an 8-cm (3-inch) disc, put it onto the inner circle of the tray.
- Do not place more than one compact disc on the disc tray.
- Skipping through the CD tracks by turning the MULTI JOG dial is not possible when the dial is used to adjust BBE, T-BASS or EQ, or to turn the Dolby NR on and off.

RANDOM PLAY

All the tracks on the disc can be played randomly.

Press the RANDOM button while pressing the SHIFT button on the remote control.

"RANDOM" lights up on the display.

To cancel random play, repeat the above again.

NOTE

- Even if the ◀◀ button is pressed or the MULTI JOG dial is turned, a previously played track cannot be skipped. The unit returns to the beginning of the current track only.
- When you select a track with the numbered buttons on the remote control during the random play mode, the selected track starts to play and the random play mode is cancelled.

REPEAT PLAY

A single track or all tracks can be played back repeatedly.

While pressing the SHIFT button, press the REPEAT button repeatedly on the remote control.

"↻1" lights up when the single track repeat play is selected, and "↻" lights up when the all tracks repeat play is selected.

To cancel repeat play, repeat the above again.

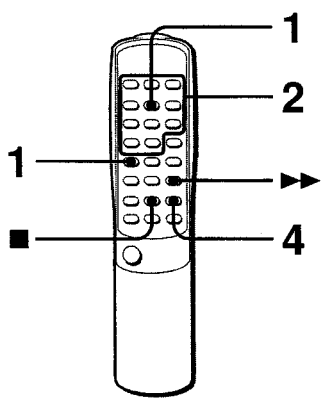
To repeat random play

First press the RANDOM button while pressing the SHIFT button on the remote control to activate random play.

Then press the REPEAT button while pressing the SHIFT button on the remote control so that "↻" lights up.

PROGRAMMED PLAY

Up to 30 tracks can be programmed from the inserted disc.



Use the remote control.

1 **Press the PRGM button while pressing the SHIFT button in stop mode.**

"PRGM" flashes on the display.

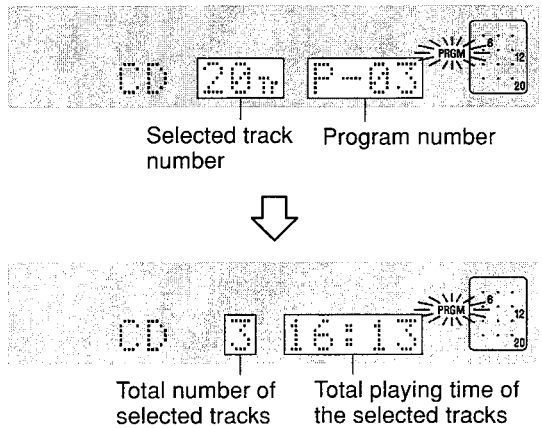
If you press the ▶ button before going to step 2, the programming mode is cancelled and the first track of the CD starts to play.

2 **Press the numbered buttons and the +10 button to program a track.**

Example:

To select the 12th track, press the +10 and 2 buttons.

To select the 20th track, press the +10, +10 and 0 buttons.



3 **Repeat step 2 to program other tracks.**

4 **Press the ▶ button to start play.**

To check the program

Each time the ▶▶ button is pressed in stop mode, a track number and program number will be displayed.

To clear the program

Press the ■ button in stop mode.

To add tracks to the program

Before playing, repeat step 2. The track will be programmed after the last track.

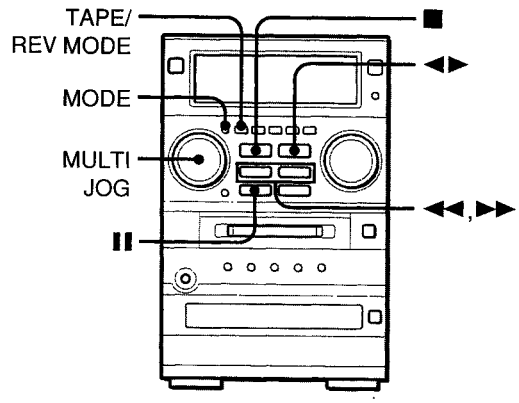
To change the programmed tracks

Clear the program and repeat all the steps again.

NOTE

During the programmed play, the EDIT/CHECK, RANDOM, and numbered buttons do not function.

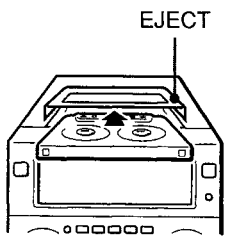
OPERATION



LOADING A TAPE

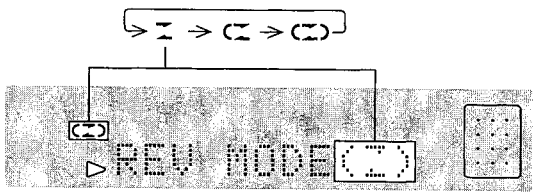
- You can select a reverse mode to play back one or both sides.
- Use Type I (normal), Type II (high/CrO_2) or Type IV (metal) tapes for playback.

Press the TAPE/REV MODE button and press the EJECT mark to open the cassette compartment.



Load a tape with the exposed side facing forward. Push the cassette holder to close.

To select a reverse mode
Each time the TAPE/REV MODE button is pressed, the reverse mode changes.



To play one side only, select ▷.
To play from front side to back side once only, select ▷▷.
To play both sides repeatedly, select ↻.

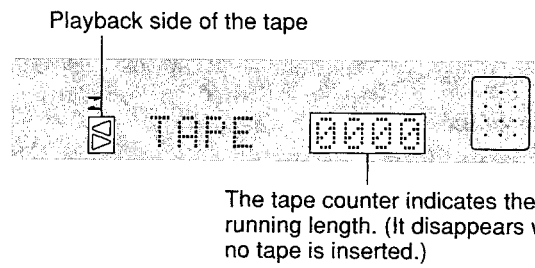
PLAYING BACK A TAPE

Load a tape.

***1* Press the MODE button repeatedly until "DOLBY OFF" appears on the display. Then, turn the MULTI JOG dial right or left to turn Dolby NR on or off to match the playback tape within 10 seconds.**

For tapes recorded with DOLBY NR, turn the dial so that "DOLBY ON" is displayed. The DD NR indication also turns on.
For tapes recorded without DOLBY NR, turn the dial so that "DOLBY OFF" is displayed.

***2* Press the ◀▶ button to start play.**


Playback side of the tape
TAPE
0000
The tape counter indicates the tape running length. (It disappears when no tape is inserted.)

◁: The side facing upward is being played (forward).
▷: The side facing downward is being played (reverse).

To stop play, press the ■ button.
To pause play, press the II button. To resume play, press again.
To change the playback side, press the ◀▶ button in play or pause mode.
To fast forward or rewind, press the ◀◀ or ▶▶ button in stop mode. Then press the ■ button to stop the tape.

To start play when the power is off (Direct Play Function)
Press the TAPE/REV MODE button. The power is turned on and play of the loaded tape begins.

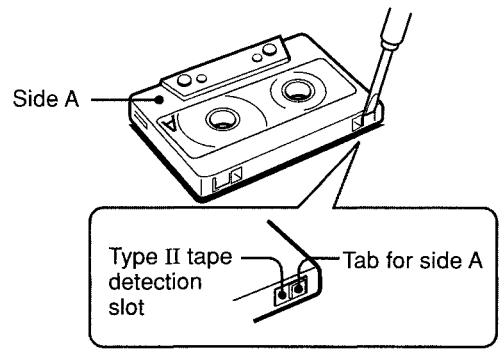
To set the tape counter to 0000
Press the ■ button in stop mode.
The counter is also set to 0000 when the cassette compartment is opened.

MUSIC SENSOR

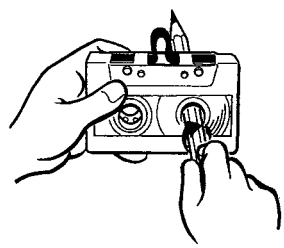
If there is a 4-second or longer blank between each track, a search for the beginning of the current or next track during playback can be done easily.
When the ◁ indicator on the display is appearing, press the ◄◄ button to move to the next track or the ►► button to move to the beginning of the current track.
When the ▷ indicator on the display is appearing, press the ►► button to move to the next track, or the ◄◄ button to move to the beginning of the current track.

The search function may not be able to detect tracks under the following conditions:
- Blanks of less than 4 seconds between tracks
- Noisy blanks
- Long passages of low-end sound
- Low overall recording levels

About cassette tapes
- To prevent accidental erasure, break off the plastic tabs on the cassette tape after recording with a screwdriver or other pointed tool.



To record on the tape again, cover the tab openings with adhesive tape, etc. (On Type II tapes, take care not to cover the Type II tape detection slot.)
- **120-minute or longer tapes** are extremely thin and easily deformed or damaged. They are not recommended.
- **Take up any slack in** the tape with a pencil or similar tool before use. Slack tape may break or jam in the mechanism.



DOLBY NR system
The Dolby Noise Reduction system reduces tape hiss noise. For optimum performance when playing back a tape recorded with the DOLBY NR system, turn on the DOLBY NR system.

WHAT IS AN MD (MINI DISC)?

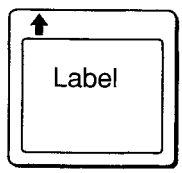
An MD is only 64 mm in diameter, about half the size of a conventional CD. But MD can be used to store and playback a full 74 minutes of data such as a CD. Unlike a CD, MD comes in a plastic cartridge, so that it can be handled with ease. The cartridge also protects the disc inside from shocks, dust and scratches. Unlike cassette tapes, which can become stretched or tangled, an MD is an excellent durable media.

TYPE OF MD

There are two types of MDs: "Optical discs" and "Magneto-optical discs". Both types use laser beams and optical pick-up technology to read recorded data during playback.

Optical discs

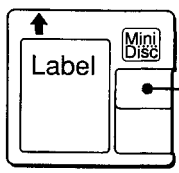
These are playback only discs. Like CDs, they are used as prerecorded music discs. You cannot record or edit them.



The shutter covers the opening only on the non-labeled side of the MD.

Recordable MO*1 discs

These are recordable discs which can be recorded on again and again, like cassette tapes. The recording method called magneto-optical technology employs a laser and magnetism to record signals. Therefore, the quality of recorded sound does not deteriorate even after many playbacks and recordings.



The shutter covers the opening on the both sides of the MD.

*1 MO: An abbreviation of Magneto Optical

Ultra compact size made possible by ATRAC*2 technology

A newly developed digital audio compression technology called the ATRAC system automatically extracts only the frequencies that are actually audible to the human ear and cuts the frequencies which are inaudible. This compresses the amount of data to be recorded to 1/5 of the normal amount. The ATRAC system is based upon studies carried out in the field of auditory psychology and does not impair the quality of the audible sound.

*2 ATRAC: An abbreviation of Adaptive TRansform Acoustic Coding

Quick random access

One of the great features of the MD is that you can search for desired tracks quickly. There are also quick and easy functions for random playback, in which the order of the tracks can be rearranged at random, and for renumbering tracks enabling them to be played in any order.

THE LIMITATIONS OF MD

Recording on the MD is performed differently from that of a cassette tape or a DAT. Therefore, the MD system is subject to the following restrictions.

"TOC* Full" is displayed even if the recording time does not reach the maximum recordable time of the disc (60-minute or 74-minute).

"TOC Full" is displayed when 254 tracks are already recorded on a disc, without respect of the recording time.
*TOC: An abbreviation of Table Of Contents.

"TOC Full" is displayed even if a disc is not fully recorded on.

If there are lots of emphasis data in a particular track, the unit handles the data as index codes, and tracks are counted, in addition, without respect of the time and number of tracks.

The remaining time on a disc is not increased even after some short tracks have been erased.

When the remaining time on a disc is displayed, which may not be increased even after erasing short tracks because the sections less than eight seconds are not counted.

Tracks cannot be joined (the COMBINE function does not function).

Tracks created by editing may not be joined.

The total of the recorded time and the remaining time on a disc does not match with the maximum recordable time of the disc (60-minute or 74-minute).

Recording is performed by the minimum unit of one cluster (two seconds). Even if the recorded section is shorter than two seconds, a two-second space is needed in recording. Therefore, the available time becomes shorter. If there are scratches on a disc, the available time becomes shorter as well, because the sections which are scratched are automatically erased.

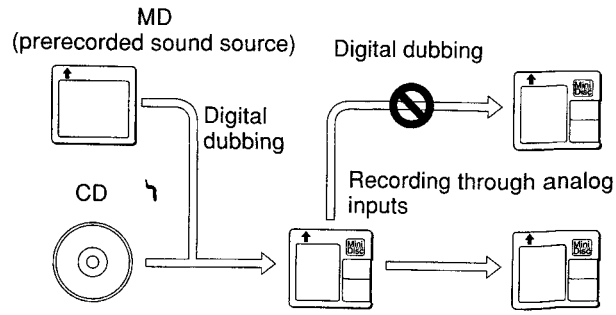
Track numbers may not be registered properly.

When recording from a CD through digital inputs (using the CD ► MD SYNCHRO REC button), small tracks may be created depending on the contents of a CD.
When using the AUTO MARK function, track numbers may not be registered properly depending on the contents of the CD.

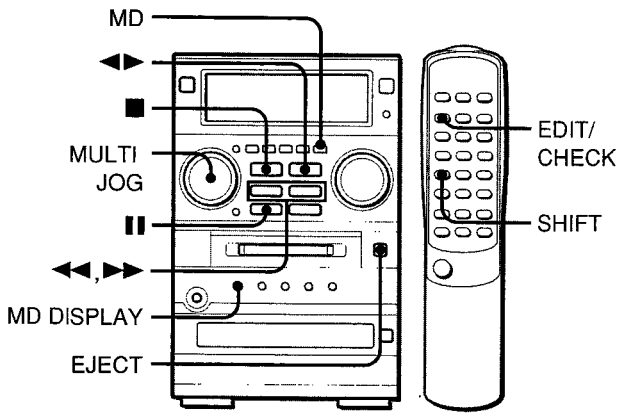
Digital inputs may not be acceptable.

When digital recording is attempted from recorded material with copyrights, digital dubbing cannot be performed to a recordable MD from another MD recorded in digital, because of the built-in record restriction function which complies with the SCMS* standard.

* SCMS (Serial Copy Management System) is the standard to restrict single digital dubbing between the digital audio system thus protecting copyrights.



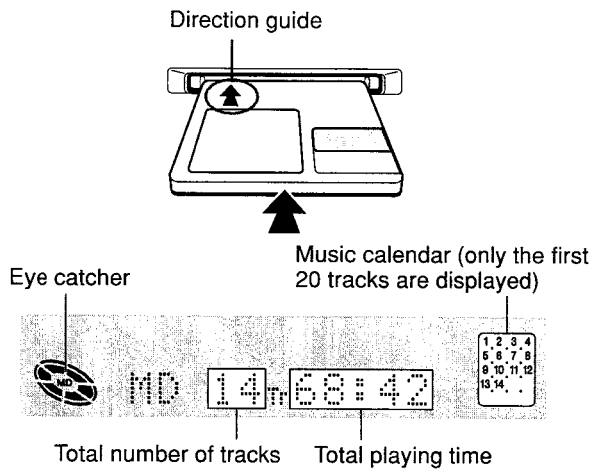
OPERATION



INSERTING AN MD

1 **Press the MD button.**

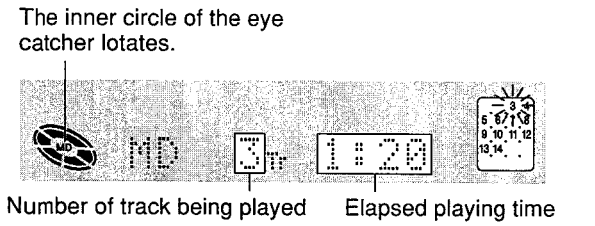
2 **Insert a disc into the disc drive fully with the label side up and in the direction of the arrow.**
"TOC READING" appears on the display while the unit reads the data of the inserted disc. Then the information contained in the disc appears.



PLAYING AN MD

Insert an MD.

Press the ◄► button.
Playback begins.



To stop play, press the ■ button.
To pause, press the II button. To resume play, press it again, or press the ◄► button.

To search for a particular point during playback, keep the ◄◄ or ►► button pressed and release the button at the desired point.
To skip to the beginning of a track during playback, press the ◄◄ or ►► button repeatedly or turn the MULTI JOG dial. The unit skips forward through the tracks when turning it right, and skips back when turning it left.

To eject a disc, press the EJECT button.
Do not hold the disc when ejecting the disc.
The disc can be ejected by pressing the EJECT button even when the unit is turned off.

Pull the disc out.

Selecting a track with the remote control
Press the numberd buttons and the +10 button to select a track.
Example:
To select the 25th track, press the +10, +10 and 5 buttons.
To select the 10th track, press the +10 and 0 buttons.
The selected track starts to play and play continues to the end of that disc.

To start play when the power is off (Direct Play Function)
Press the MD button. The power is turned on and play of the inserted disc begins.

To play a disc at the double speed
During play, keep the ◄► button pressed for more than two seconds.
To resume normal play, press the ◄► button again .
Stopping play with the ■ button also releases the double-speed playback mode.

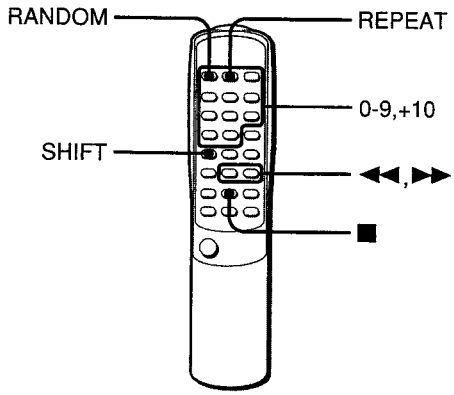
To check the remaining time
During play, press the EDIT/CHECK button while pressing the SHIFT button on the remote control. To restore the playing time display, repeat the above.
Note that the remaining time cannot be displayed during random or programmed play.

To check the track title
During play, press the MD DISPLAY button. The title of the track being played is displayed. If the track title is not registered, the track number is displayed. To restore the playing time display, press the MD DISPLAY button again.

To check the disc title
In stop mode, press the MD DISPLAY button. The title of the disc is displayed. If the disc title is not registered, "No Title" is displayed. To restore the total playing time display, press the MD DISPLAY button again.

NOTE

- Nothing other than an MD should be inserted in the disc drive, otherwise the disc may become scratched, causing a malfunction or a safety hazard such as an electric shock.
- Do not attempt to insert another MD while a disc is already inside the drive. While a disc is already inserted inside with the power off, the inner circle of the eye catcher is displayed.
- Do not tilt the unit with a disc inserted. Doing so may cause malfunctions.



RANDOM PLAY

All the tracks on the disc can be played randomly.

Press the RANDOM button while pressing the SHIFT button on the remote control.

"RANDOM" lights up on the display.
To cancel random play, repeat the above again.

NOTE

- Even if the ◀◀ button is pressed or the MULTI JOG dial is turned, a previously played track cannot be skipped. The unit returns to the beginning of the current track only.
- When you select a track with the numbered buttons on the remote control during the random play mode, the selected track starts to play and the random play mode is cacelled.

REPEAT PLAY

A single track or all tracks can be played back repeatedly.

While pressing the SHIFT button, press the REPEAT button repeatedly on the remote control.

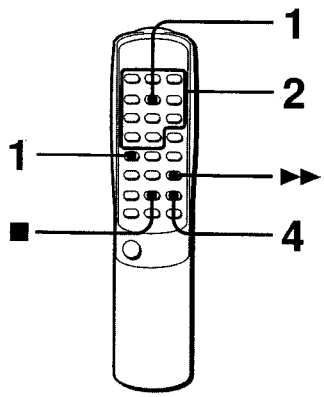
"↻1" lights up when the single track repeat play is selected, and "↻" lights up when the all tracks repeat play is selected.
To cancel repeat play, repeat the above again.

To repeat random play

First press the RANDOM button while pressing the SHIFT button on the remote control to activate random play.
Then press the REPEAT button while pressing the SHIFT button on the remote control so that "↻" lights up.

PROGRAMMED PLAY

Up to 30 tracks can be programmed from the inserted disc.



Use the remote control.

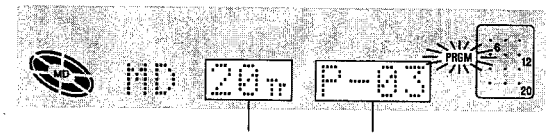
***1* Press the PRGM button while pressing the SHIFT button in stop mode.**

"PRGM" flashes on the display.

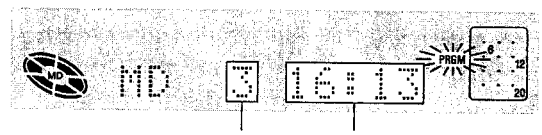
***2* Press the numbered buttons and the +10 button to program a track.**

Example:

To select the 12th track, press the +10 and 2 buttons.
To select the 20th track, press the +10, +10 and 0 buttons.



Selected track number Program number



Total number of selected tracks Total playing time of the selected tracks

***3* Repeat step 2 to program other tracks.**

***4* Press the ◀▶ button to start play.**

To check the program

Each time the ▶▶ button is pressed in stop mode, a track number and program number will be displayed.

To clear the program

Press the ■ button in stop mode.

To add tracks to the program

Before playing, repeat step 2. The track will be programmed after the last track.

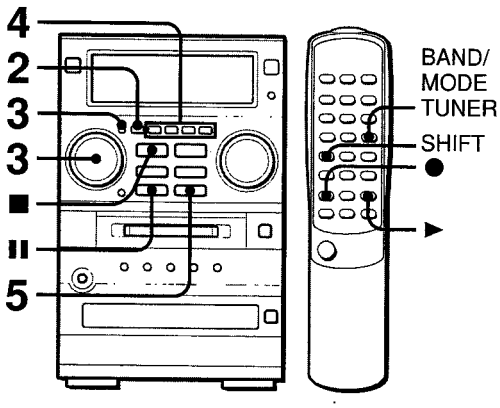
To change the programmed tracks

Clear the program and repeat all the steps again.

NOTE

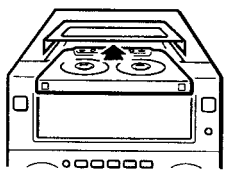
During the programmed play, the EDIT/CHECK, RANDOM, and numbered buttons do not function.

BASIC RECORDING



Preparation
- Set the tape to the point where recording will start.
- Use Type I (normal) and Type II (high/CrO_2) tapes for recording.

1 **Load the tape to be recorded on into the deck.**
Load the tape with the side to be recorded on first facing upward and the exposed side facing forward.



2 **Press the TAPE/REV MODE button to select the reverse mode.**
To record on one side only, select ⇄.
To record on both sides, select ⇄ or (⇄).

3 **Press the MODE button repeatedly until "DOLBY OFF" or "DOLBY ON" appears on the display. Then turn the MULTI JOG dial right or left to turn Dolby NR on or off within 10 seconds.**
To record with DOLBY NR, turn the dial so that "DOLBY ON" is displayed. The DD NR indication also turns on.
To record without DOLBY NR, turn the dial so that "DOLBY OFF" is displayed.

4 **Press one of the function buttons and prepare the source to be recorded.**
To record from a radio broadcast, press the TUNER/BAND button and tune in to a station.
To record from a CD or an MD, first press the CD or MD button and load the disc, then press the ◄◄ or ►► button or turn the MULTI JOG dial to select the track to be recorded first.
To record from the connected source, press the VIDEO/AUX button and prepare to play.

5 **Press the ● button to start recording.**
When the selected source is CD or MD, playback and recording start simultaneously.
When the selected source is VIDEO/AUX, start playback.

To stop recording, press the ■ button. When recording from a CD or an MD, press the ■ button again to stop playback.
To pause recording, press the II button. (Applicable when the source is TUNER, VIDEO/AUX.) To resume recording, press again.

To start recording with the remote control
First press the ● button, and then press the ► button within 2 seconds.

NOTE

If squealing or beating sounds occur when recording an MW or LW broadcast, press the BAND/MODE TUNER button while pressing the SHIFT button on the remote control, so as to eliminate the noise.
When you press these buttons, "BEAT 1" or "BEAT 2" is displayed.

INSERTING BLANK SPACES

Insertion of a 4-second blank spaces enables activation of the Music Sensor function. (Applicable when the source is TUNER, or VIDEO/AUX.)

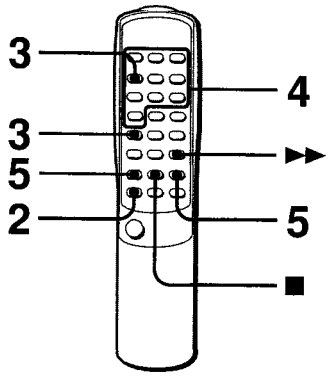
1 Press the ● button during recording or while in recording pause mode.
The ● button flashes for 4 seconds and the tape runs without recording. After 4 seconds, the deck enters the recording pause mode.

2 Press the II button to resume recording.

To insert a blank space of less than 4 seconds, press the ● button again while the button is flashing.
To insert blank spaces of more than 4 seconds, after the deck enters recording pause mode, press the ● button again. Each time the button is pressed, a 4-second blank space is added.

To erase a recording
1 Insert the tape to be erased into the deck.
2 Set the tape to the point where the erasure is to be started.
3 Press the VIDEO/AUX button.
If an optional equipment is connected to the VIDEO/AUX jacks, turn it off.
4 Press the ● button to start the erasure.

AI EDIT RECORDING



The AI edit function enables CD recording without worrying about tape length and track length. When a CD is inserted, the unit automatically calculates track lengths. If necessary, the order of tracks is rearranged so that no track is cut short.
(AI: Artificial Intelligence)

NOTE

AI edit recording will not start from a point halfway into the tape. The tape must be recorded from the beginning of either side.

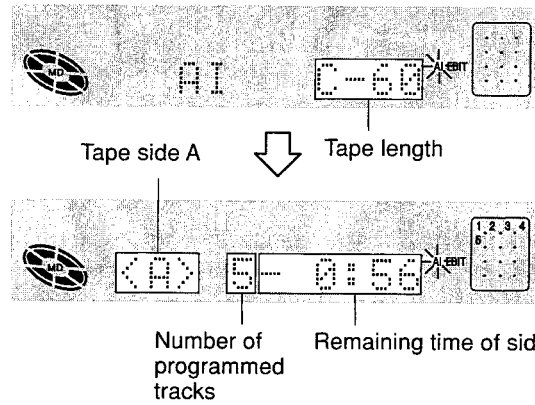
Use the remote control from steps 3 to 5.

1 **Insert the tape into the deck, and turn Dolby NR on or off by using the MODE button and the MULTI JOG dial.** (see "BASIC RECORDING step 3")
Insert the tape with the side to be recorded on first facing upward.

2 **Press the CD button on the main unit so taht "CD" is displayed, and load the disc.**
You can press the FUNCTION button on the remote control repeatedly to display "CD".

3 **Press the EDIT/CHECK button once while pressing the SHIFT button.**
"EDIT" lights up and "AI" flashes on the display.

4 **Press the numbered buttons to designate the tape length.**
10 to 99 minutes can be specified.
Example: When using a 60-minute tape, press the 6 and 0 buttons.
In a few seconds, the microcomputer determines the tracks to be recorded on each side of the tape.
- The ◀◀ and ▶▶ buttons and the MULTI JOG dial are also available to designate the tape length.

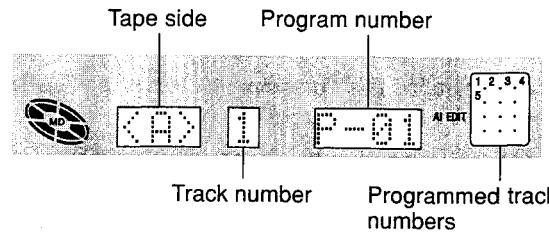


5 **First press the ● button and then press the ▶ button within 2 seconds to start recording.**
The tape is rewound to the beginning of the side facing upward, the lead segment is played through for 10 seconds, and recording starts. When recording on the side facing upward (side A) ends, recording on the opposite side (side B) starts.

To stop recording
Press the ■ button. Recording and CD play stop simultaneously.

To clear the edit program
Press the ■ button twice so that "EDIT" disappears on the display.

To check the order of the programmed track numbers
Before recording, press the EDIT/CHECK button while pressing the SHIFT button to select side A or B, and press the ▶▶ button repeatedly.

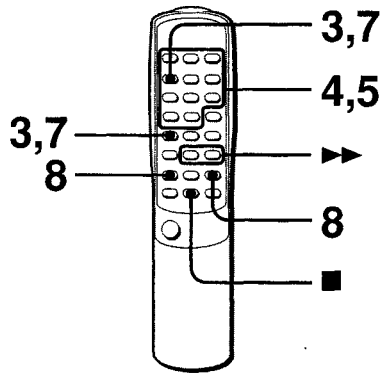


Time on cassette tapes and editing time
The actual cassette recording time is usually a little longer than the specified recording time printed on the label. This unit can program tracks to use the extra time.

NOTE

- Recording is inhibited if the erasure prevention tab on either side of the tape is broken off.
- The AI edit function cannot be used with discs containing 31 tracks or more.

PROGRAMMED EDIT RECORDING



Programmed edit function enables CD recording while checking the remaining time on each side of the tape as the tracks are programmed.

NOTE

The programmed edit recording will not start from a point halfway in the tape. The tape must be recorded from the beginning of either side.

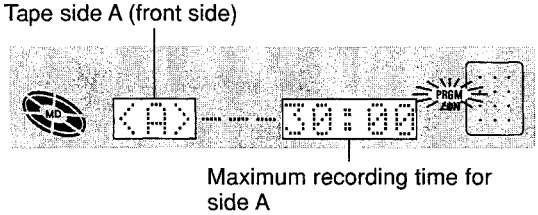
Use the remote control from steps 3 to 8.

1 **Insert the tape into the deck, and turn Dolby NR on or off by using the MODE button and the MULTI JOG dial.** (see "BASIC RECORDING step 3")
Insert the tape with the side to be recorded on first facing upward.

2 **Press the CD button on the main unit so taht "CD" is displayed, and load the disc.**
You can press the FUNCTION button on the remote control repeatedly to display "CD".

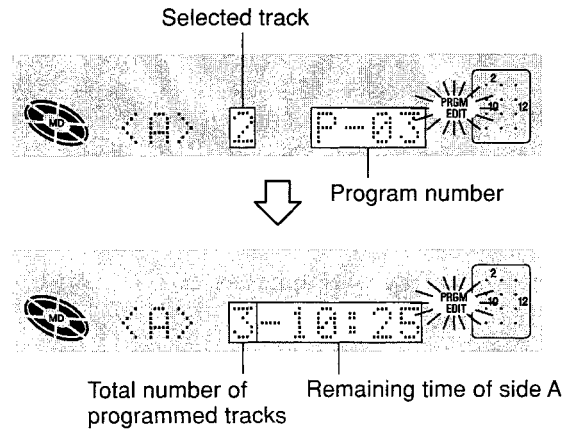
3 **Press the EDIT/CHECK button twice while pressing the SHIFT button.**
"EDIT" lights up and "PRGM" flashes on the display.

4 **Press the numbered buttons to designate the tape length.**
10 to 99 minutes can be specified.
Example: When using a 60-minute tape, press the 6 and 0 buttons.
• The ◄◄ and ►► buttons and the MULTI JOG dial are also available to designate the tape length.

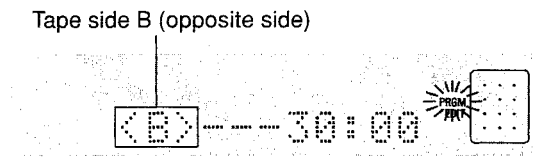


5 **Press the numbered buttons to program a track.**
Example: To select the 10th track, press the numbered buttons +10 and 0.

6 **Repeat step 5 for the rest of the tracks for side A.**
A track whose playing time is longer than the remaining time cannot be programmed.



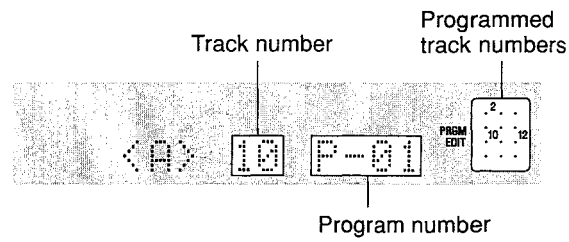
7 **Press the EDIT/CHECK button while pressing the SHIFT button to select side B and program the tracks for side B.**
After confirming B on the display, repeat step 5.



8 **Press the ● button and then press the ► button within 2 seconds to start recording.**
The tape is rewound to the beginning of the side facing upward, the lead segment is played through for 10 seconds, and recording starts. When recording on the side facing upward (A) ends, recording on the opposite side (B) starts.

To stop recording
Press the ■ button. Recording and CD play stop simultaneously.

To check the order of the programmed track numbers
Before recording, press the EDIT/CHECK button while pressing the SHIFT button to select side A or B, and press the ►► button repeatedly.



To change the program of each side
Press the EDIT/CHECK button while pressing the SHIFT button to select side A or B, and press the ■ button to clear the program of the selected side. Then program tracks again.

To clear the edit program
Press the ■ button repeatedly so that "EDIT" disappears on the display.

NOTE

Recording is inhibited if the erasure prevention tab on either side of the tape is broken off.

VARIOUS WAYS OF MD RECORDING

Recording through digital inputs
Digital recording of CD audio signals to MDs gives recordings with no degradation in sound quality. You can use any of the following methods to record from CDs to MDs.
- Record a complete CD onto an MD
- Record only one track from a CD
- Record your favorite CD tracks in any order

Recording through analog inputs
Recording through analog inputs from the tuner, cassette tape or the external equipment connected to the VIDEO/AUX jacks can be made easily. Recording through analog inputs from a CD is also possible.

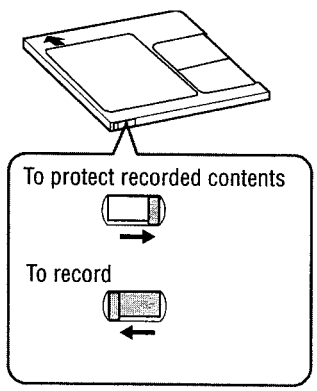
Extended recording
Twice as long as the time printed on the MD can be obtained by using the monaural recording mode.

NOTE

- Nothing other than an MD should be inserted in the disc drive, otherwise the disc may become scratched, causing a malfunction.
- Do not give a strong shock or disconnect the AC cord during recording or a TOC* recording. Doing so may cause the errors in the TOC recording and the contents cannot be played back.
- During recording, the outer circle of the eye catcher lights up in red.

* TOC : An abbreviation of Table Of Contents
The TOC data functions as a coded index of the recorded material. The unit records the TOC data such as a playing time and recorded address on an MD.

To prevent accidential erasure of recorded material
Slide the record-protect tab as shown below.
Slide the tab so that it is completely locked.



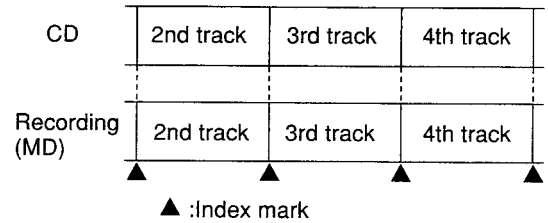
If a recording is attempted when the tab is set to the protected position, "Protected" appears on the display. Move the protect-tab to the original position.

ABOUT THE INDEX MARK

You can easily select the desired tracks by registering index marks during recording.
Choose the appropriate method to register index marks.

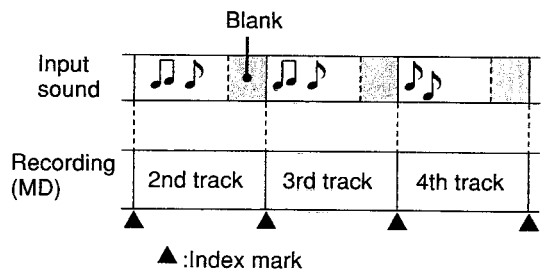
AUTO MARK FUNCTION

When recording from a CD using the CD ► MD SYNCHRO REC button
The index mark information recorded on the CD is copied.



The auto mark function is applied in the following cases:
–When recording a whole CD onto an MD (page 22)
–When recording one track of a CD onto an MD (page 23)
–When performing programmed recording of a CD (page 24)
You cannot add the index marks using the time mark function and manual mark function described below.

When recording CDs or other sources using the MD REC button
An index mark is registered automatically when a sound signal is input after a blank section lasting more than 2 seconds.



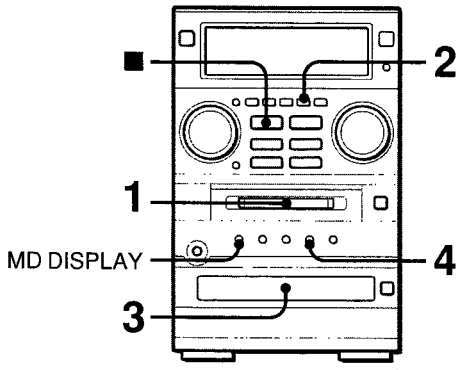
TIME MARK FUNCTION

When recording CDs or other sources using the MD REC button (pages 25 and 26), you can optionally record index mark information at an interval of 5 minutes.
This makes it easy to locate recorded radio broadcast material, etc.

MANUAL MARK FUNCTION

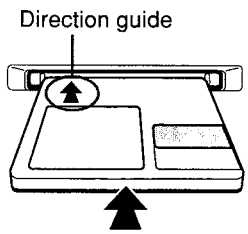
When recording CDs or other sources using the MD REC button (pages 25 and 26), you can record index mark information anytime you want by pressing the ENTER button.

RECORDING A WHOLE CD



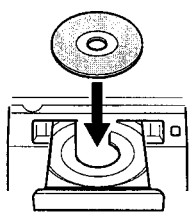
To check the recordable time of the MD
Press one of the function buttons other than MD and load an MD. Then press the MD DISPLAY button.
The recordable time on the MD is displayed.

***1* Load a recordable MD into the disc drive with the label side up and in the direction of the arrow.**



***2* Press the CD button.**

***3* Load the CD to be recorded.**



***4* Press the CD ► MD SYNCHRO REC button to start recording.**

Recording stops automatically when the music on the CD ends. When recording stops, "TOC EDIT" is displayed and the contents (TOC) of the recording are recorded on the MD.

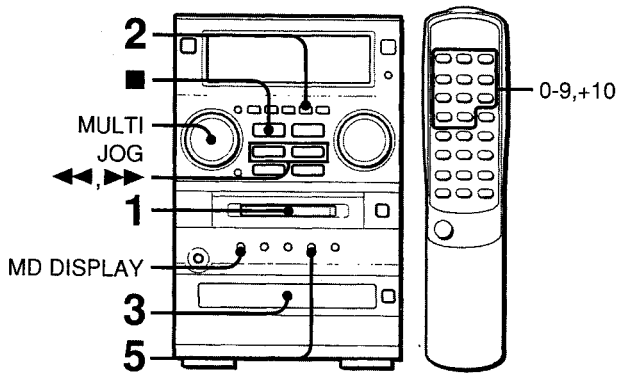
To stop recording before the end of the CD
Press the ■ button. Recording to the MD stops, and the contents (TOC) of the recording are recorded on the MD.
To stop play of the CD, press the ■ button again.

To record on a previously recorded MD
If there is an unrecorded section left on the MD, the new recording automatically starts from where the previous recording finished. If you want to start recording from the beginning of a previously recorded MD, erase the previous recording completely. (See page 30.)

To change the display during recording
Press the MD DISPLAY button. With each press of the button, the display changes in the following order.

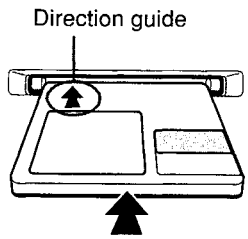
→① Track number and elapsed time of CD
(Example: CD 1Tr 1:23)
② Remaining playback time of CD
(Example: CD –32:37)
└③ Recordable time on MD
(Example: MD –36:15)

RECORDING ONLY ONE TRACK OF A CD



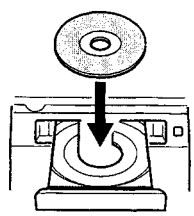
To check the recordable time of the MD
Press one of the function buttons other than MD and load an MD. Then press the MD DISPLAY button.
The recordable time on the MD is displayed.

***1* Load a recordable MD into the disc drive with the label side up and in the direction of the arrow.**



***2* Press the CD button.**

***3* Load the CD to be recorded.**



***4* Play back the track to record.**
Press the numbered buttons on the remote control. Or select the track with the ◄◄ / ►► buttons or MULTI JOG dial and press the ◄► button.

***5* Press the CD ► MD SYNCHRO REC button to start recording.**

Recording stops automatically when the track ends.
When recording stops, "TOC EDIT" is displayed and the contents (TOC) of the recording are recorded on the MD.

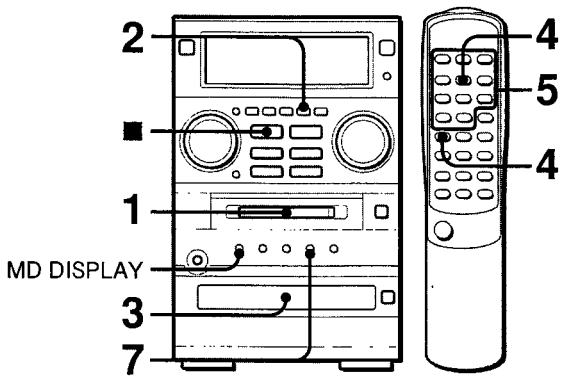
To stop recording before the end of the track
Press the ■ button. Recording to the MD stops, and the contents (TOC) of the recording are recorded on the MD.
To stop play of the CD, press the ■ button again.

To record on a previously recorded MD
If there is an unrecorded section left on the MD, the new recording automatically starts from where the previous recording finished. If you want to start recording from the beginning of a previously recorded MD, erase the previous recording completely. (See page 30.)

To change the display during recording
Press the MD DISPLAY button. With each press of the button, the display changes in the following order.
① Track number and elapsed time of CD
(Example: CD 1Tr 1:23)
② Recordable time on MD
(Example: MD –36:15)

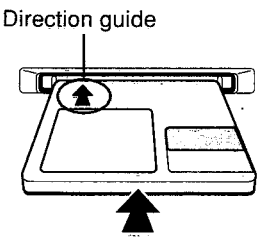
PROGRAMMED RECORDING OF CDS

Up to 30 tracks can be programmed and recorded on an MD.



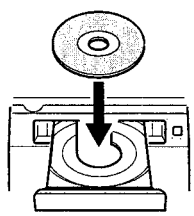
To check the recordable time of the MD
Press one of the function buttons other than MD and load an MD. Then press the MD DISPLAY button.
The recordable time on the MD is displayed.

***1* Load a recordable MD into the disc drive with the label side up and in the direction of the arrow.**



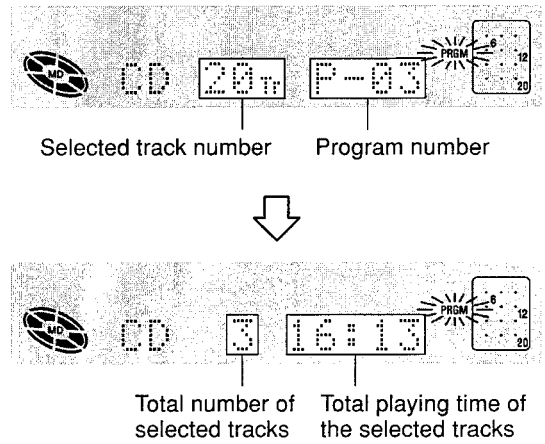
***2* Press the CD button.**

***3* Load the CD to be recorded.**



***4* Press the PRGM button while pressing the SHIFT button on the remote control.**
"PRGM" flashes on the display.

***5* Press the numbered button and the +10 button to program a track to record.**
Example:
To select the 12th track, press the +10 and 2 buttons.
To select the 20th track, press the +10, +10 and 0 buttons.



***6* Repeat step 5 to program other tracks.**

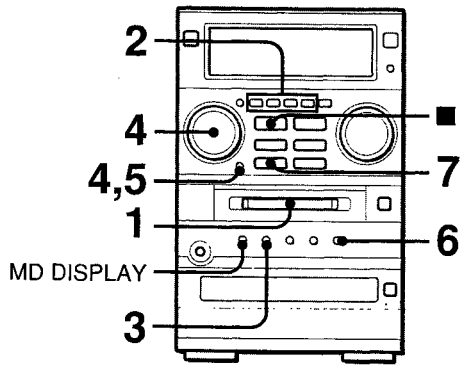
***7* Press the CD ► MD SYNCHRO REC button to start recording.**
Recording begins.
When the programmed tracks finish playing, the recording stops automatically.
Then "TOC EDIT" is displayed and the contents (TOC) of the recording are recorded to the MD.

To stop recording halfway
Press the ■ button. Recording to the MD stops, and the contents (TOC) of the recording are recorded on the MD.
To stop play of the CD, press the ■ button again.

To record on a previously recorded MD
If there is an unrecorded section left on the MD, the new recording automatically starts from where the previous recording finished. If you want to start recording from the beginning of a previously recorded MD, erase the previous recording completely. (See page 30.)

To change the display during recording
Press the MD DISPLAY button. With each press of the button, the display changes in the following order.
① Track number and elapsed time of CD
(Example: CD 1Tr 1:23)
② Recordable time on MD
(Example: MD -36:15)

RECORDING FROM A TAPE, THE RADIO, A CD OR CONNECTED EQUIPMENT



To check the recordable time of the MD
Press one of the function buttons other than MD and load an MD. Then press the MD DISPLAY button.
The recordable time on the MD is displayed.

1 **Load a recordable MD into the disc drive with the label side up and in the direction of the arrow.**

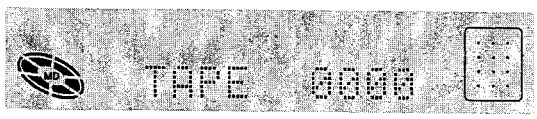
2 **Press one of the function buttons and prepare the source to be recorded.**
- To record from a tape, press the TAPE button and insert a tape.
- To record from the radio, press the TUNER/BAND button and tune in to a station.
- To record from equipment connected to the VIDEO/AUX jacks, press the VIDEO/AUX button.
- To record from a CD, press the CD button and load a CD.

3 **Press the MD MODE button.**
"Mark MODE?" is displayed for 10 seconds.

4 **Within 10 seconds, press the ENTER button and turn the MULTI JOG dial to select an index mark mode.**
To register index marks automatically at the beginning of each track, select "Mark: AUTO?".
To register index marks every 5 minutes, select "Mark: Time?".
To record without index marks, select "Mark: OFF?".

5 **Within 10 seconds, press the ENTER button.**

6 **Press the MD REC button.**
The unit enters the standby mode. Wait until the source name selected at step 2 is displayed.



7 **Press the ❚❚ button to start recording.**
When recording from connected equipment, start playback of the connected equipment.

To stop recording
Press the ■ button. When recording stops, "TOC EDIT" is displayed and the contents (TOC) of the recording are recorded on the MD.

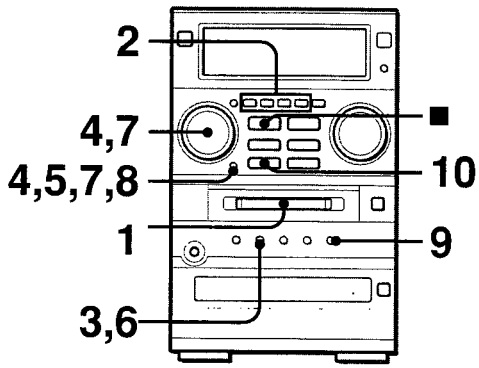
To add index marks during recording
Press the ENTER button, and an index mark is registered regardless of the index mark mode selected at step 4.

To record on a previously recorded MD
If there is an unrecorded section left on the MD, the new recording automatically starts from where the previous recording finished. If you want to start recording from the beginning of a previously recorded MD, erase the previous recording completely. (See page 30.)

To change the display during recording
Press the MD DISPLAY button. With each press of the button, the display changes in the following order.
→① Source
(Example: AUX)
② Recordable time on MD
(Example: MD –36:15)
③ Track number and elapsed recording time of MD
However, see page 20 for the display when the source is a CD.

EXTENDED (MONAURAL) RECORDING

Twice as long as the time printed on the MD can be obtained if you select the monaural recording mode.



1 **Load a recordable MD into the disc drive with the label side up and in the direction of the arrow.**

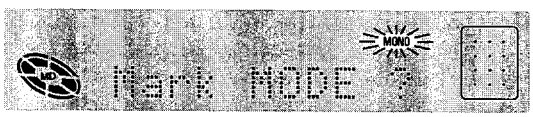
2 **Press one of the function buttons and prepare the source to be recorded.**
- To record from a tape, press the TAPE button and insert a tape.
- To record from the radio, press the TUNER/BAND button and tune in to a station.
- To record from equipment connected to the VIDEO/AUX jacks, press the VIDEO/AUX button.
- To record from a CD, press the CD button and load a CD.

3 **Press the MD MODE button twice.**
"REC MODE?" is displayed for 10 seconds.

4 **Within 10 seconds, press the ENTER button and turn the MULTI JOG dial so that "REC: MONO?" is displayed.**

5 **Within 10 seconds, press the ENTER button.**
"MONO" flashes on the display.

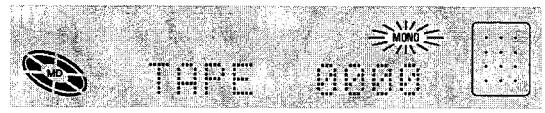
6 **Press the MD MODE button.**
"Mark MODE?" is displayed for 10 seconds.



7 **Within 10 seconds, press the ENTER button and turn the MULTI JOG dial to select an index mark mode.**
To register index marks automatically at the beginning of each track, select "Mark: AUTO?".
To register index marks every 5 minutes, select "Mark: Time?".
To record without index marks, select "Mark: OFF?".

8 **Within 10 seconds, press the ENTER button.**

9 **Press the MD REC button.**
The unit enters the standby mode. Wait until the source name selected at step 2 is displayed.



10 **Press the ❚❚ button to start recording.**
When recording from connected equipment, start playback of the connected equipment.

To stop recording
Press the ■ button. When recording stops, "TOC EDIT" is displayed and the contents (TOC) of the recording are recorded on the MD.

To add index marks during recording
Press the ENTER button, and an index mark is registered regardless of the index mark mode selected at step 7.

To record on a previously recorded MD
If there is an unrecorded section left on the MD, the new recording automatically starts from where the previous recording finished. If you want to start recording from the beginning of a previously recorded MD, erase the previous recording completely. (See page 30.)

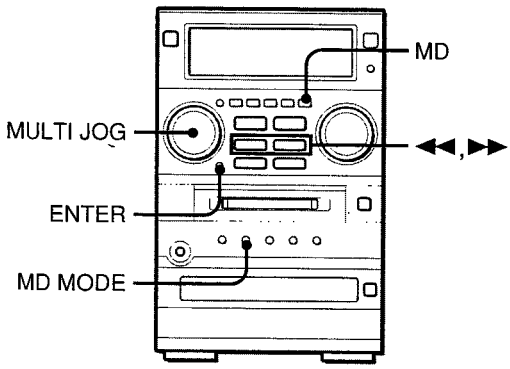
To cancel the extended recording mode
If "MONO" flashes on the display, proceed as follows to cancel the extended (monaural) recording mode.

1 **Press the MD MODE button twice, and within 10 seconds, press the ENTER button.**
"REC: STEREO?" is displayed.

2 **Within 10 seconds, press the ENTER button.**
"MONO" disappears on the display.

REGISTERING THE DISC TITLE AND TRACK TITLE

You can register the titles of the discs and tracks.
The registered disc title can be displayed by pressing the MD DISPLAY button in the MD stop mode.
The registered track title can be displayed by pressing the MD DISPLAY button while the track is being played.

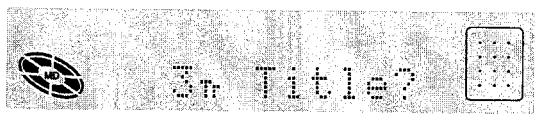


1 Press the MD button and load an MD to register the disc or track title.

2 To register a disc title, press the MD MODE button in stop mode.
"Disc title?" is displayed for 10 seconds.

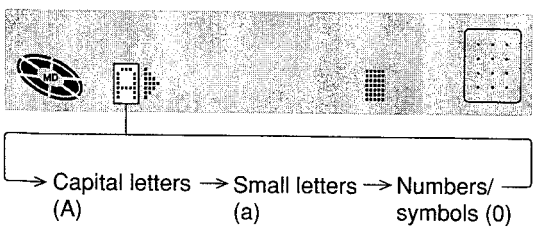
To register a track title, select a track to register the title using the ◀◀ or ▶▶ button, the MULTI JOG dial, or the numbered buttons on the remote control. Then press the MD MODE button.
"Title?" is displayed for 10 seconds.

Example: When registering a title for the 3rd track

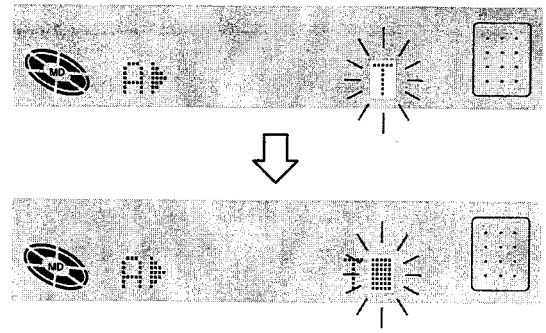


3 Within 10 seconds, press the ENTER button.
The unit turns into character entry mode.

4 Press the MD MODE button repeatedly to select the kind of character.
Each time the MD MODE button is pressed, the kind of character changes in the following order.



5 Turn the MULTI JOG dial to select a desired character, then press the ▶▶ button.



When you press the ▶▶ button, the selected character moves one column to the left.

6 Repeat steps 4 and 5 to enter all the required characters (up to 50 characters).
If you leave the unit without performing any operation for one minute in steps 4 and 5, the character entry mode will be cancelled. If this happens, repeat from step 2.

7 Press the ENTER button.

8 Remove the MD from the unit.
"TOC EDIT" is displayed and the entered title is registered.

To change a character
Press the ◀◀ or ▶▶ button repeatedly until the character to be changed flashes. Then enter the desired character again.

To delete characters
Press the ◀◀ or ▶▶ button repeatedly until the character to be deleted flashes. Then press the ▮▮ button.

To insert a space between the characters
Press the ◀◀ or ▶▶ button repeatedly until the part to be entered as a space flashes. Then press the ◀▶ button.

To add a character between two characters
First, insert a space between two characters as described above. Then change the space to the desired character by entering it.

NOTE

- While "TOC EDIT" is displayed, do not disconnect the AC cord or do not give a strong shock to the unit. If this happens, the data of TOC will not be recorded properly and the edited contents on a disc will not be able to be played.
- A title cannot be registered in the following cases:
  - –When a prerecorded disc is inserted ("PB DISC" appears on the display.)
  - –When the protect-tab on an inserted disc is moved to the protected position ("Protected" appears on the display.)
  - –During random play or programmed play

CHARACTERS THAT CAN BE REGISTERED

Capital letters
□ (space) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

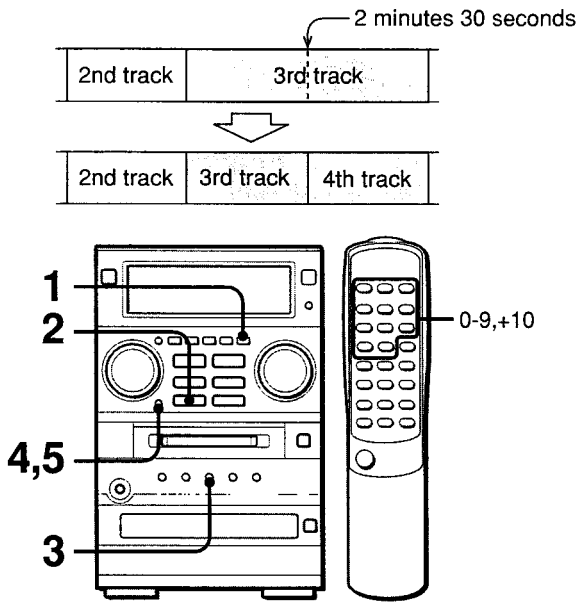
Small letters
□ (space) a b c d e f g h i j k l m n o p q r s t u v w x y z

Numbers and symbols
□ (space) 0 1 2 3 4 5 6 7 8 9 ! " # $ % & ' ( ) * + , - . / : ; < = > ? @ _ `

DIVIDING A TRACK

You can divide a track into two tracks by registering an index mark.

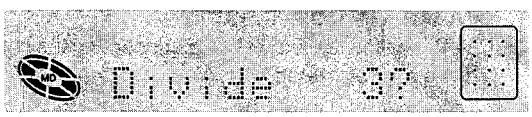
Example
To divide the 3rd track into two tracks at 2 minutes 30 seconds:



***1* Press the MD button and load an MD.**

***2* During playback, press the ❚❚ button at the point where you want to divide the track.**
The unit enters the playback pause mode.

***3* Press the MD EDIT button so that "Divide" is displayed.**
"Divide" is displayed for 10 seconds.
Example:
When dividing the 3rd track



***4* Within 10 seconds, press the ENTER button.**
The unit plays repeatedly the 3 to 4 seconds after the point where you pressed the ❚❚ button.

***5* Press the ENTER button.**
An index mark is registered and the track number advances by one.

***6* Remove the MD from the unit.**
"TOC EDIT" is displayed and the data concerning the contents of the editing are registered.

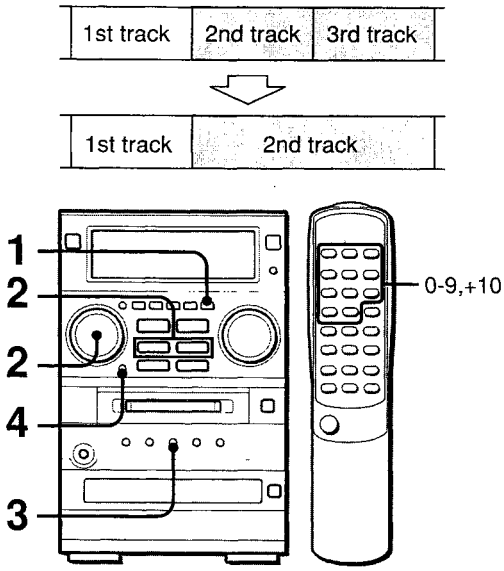
NOTE

- If the track had a title before the division, the title is assigned to the first of the two divided tracks.
- A track cannot be divided when an inserted disc already contains 254 tracks.

COMBINING TWO TRACKS

You can combine two tracks by erasing the index mark in between.

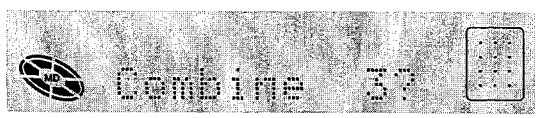
Example
To combine the 2nd track and the 3rd track by erasing the index mark at the beginning of the 3rd track:



***1* Press the MD button and load an MD.**

***2* Select or play back the latter track of the two tracks to be combined using the ◄◄ or ►► button, the MULTI JOG dial, or the numbered buttons on the remote control.**
Example:
To combine the 2nd and 3rd tracks, select or play back the 3rd track.

***3* Press the MD EDIT button repeatedly so that "Combine" is displayed.**
Example:
When combining the 2nd and 3rd tracks



***4* Within 10 seconds, press the ENTER button.**
The two tracks are combined.
The track numbers from this point forward are decreased by 1.

5 Remove the MD from the unit.
"TOC EDIT" is displayed and the data concerning the contents of the editing are registered.

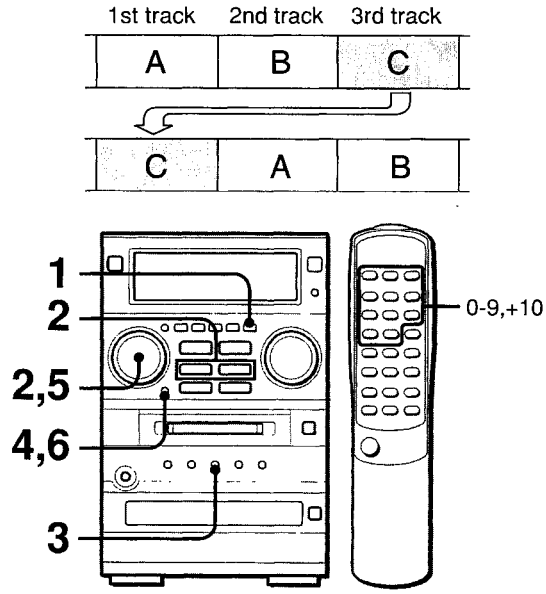
NOTE

- If both of the tracks are titled, the title of the lower numbered track remains. If only one track is titled on the tracks to be combined, this title remains.
- You cannot combine a track recorded in monaural and a track recorded in stereo.

CHANGING THE ORDER OF THE TRACKS

You can change the order of tracks after completing a recording.

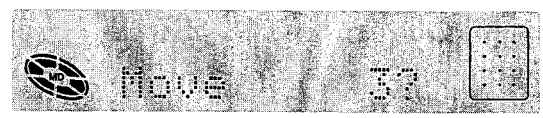
Example
To move the 3rd track to the 1st position



***1* Press the MD button and load an MD.**

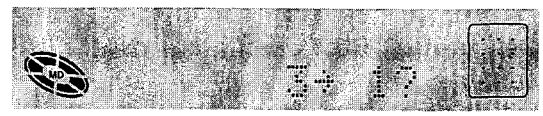
***2* Select or play back the track to be moved using the MULTI JOG dial or the numbered buttons on the remote control.**

***3* Press the MD EDIT button repeatedly so that "Move" is displayed.**
Example:
When moving the 3rd track



***4* Within 10 seconds, press the ENTER button.**

***5* Turn the MULTI JOG dial to select the desired track number to move the track to.**
Example:
When moving to the 1st position

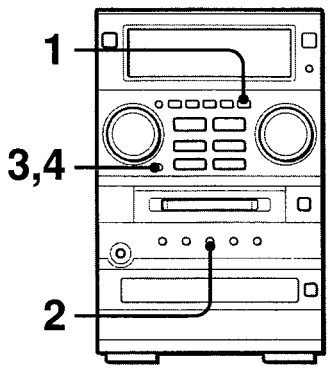


***6* Within 10 seconds, press the ENTER button.**

***7* Remove the MD from the unit.**
"TOC EDIT" is displayed and the data concerning the contents of the editing are registered.

ERASING TRACKS

ERASING ALL TRACKS ON A DISC

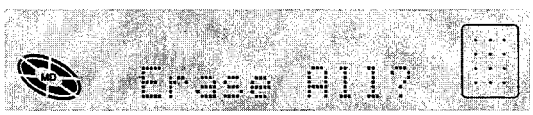


NOTE

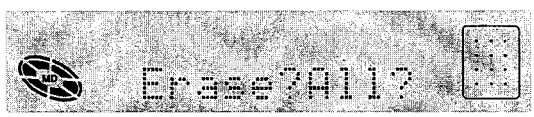
If you erase all the tracks, you cannot retrieve them again.

1 **Press the MD button and load an MD.**

2 **In stop mode, press the MD EDIT button repeatedly until "Erase All?" is displayed.**



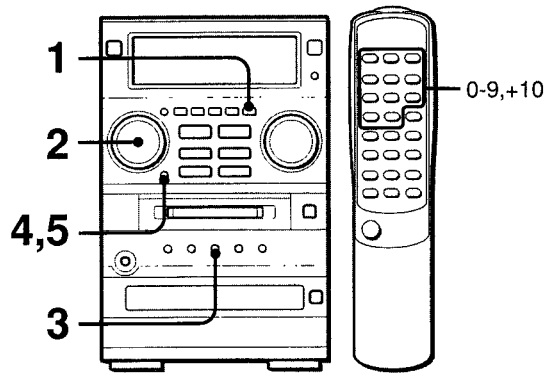
3 **Within 10 seconds, press the ENTER button.**
The display changes to "Erase?All?".



Make sure that it is all right to erase all tracks.
To cancel erasing tracks, press the ■ button.

4 **Within 1 minute, press the ENTER button.**
"TOC EDIT" is displayed and all tracks on the inserted disc are erased.
After completion of the erasure, "Blank Disc" is displayed.

ERASING A SINGLE TRACK



1 **Press the MD button and load an MD.**

2 **Select or play back the track to be erased using the MULTI JOG dial or the numbered buttons on the remote control.**

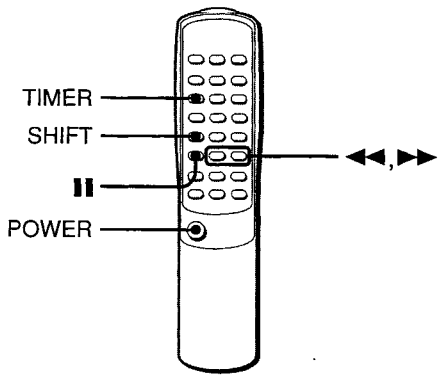
3 **Press the MD EDIT button repeatedly so that "Erase" is displayed.**
Example:
When erasing the 3rd track

4 **Within 10 seconds, press the ENTER button.**
The display changes to "Erase?".

Make sure that it is all right to erase the track.
To cancel erasing the track, press the ■ button.

5 **Within 1 minute, press the ENTER button.**
The selected track is erased and all the succeeding track numbers are decreased by 1.
"TOC EDIT" is displayed and the data concerning the contents of the editing are registered.

TIMER PLAY AND TIMER RECORDING



The unit can be turned on at a specified time every day with the built-in timer.

Preparation
Make sure the clock is set correctly. (See page 5.)

Use the remote control.

1 **Press the TIMER button repeatedly while pressing the SHIFT button on the remote control to display ◴ (for timer play) or ◴ and REC (for timer recording).**

◴ :for timer play
◴ and REC for timer recording

2 **Press the II button within 4 seconds.**
The hour flashes.

NOTE

If you do not press the II button within 4 seconds, another operation may start.

3 **Designate the hour of the timer-on time by pressing the ◄◄ or ►► button or by turning the MULTI JOG dial, and press the II button. Repeat to designate the minute of the timer-on time.**

4 **Select a source for timer play, or a source and a recording source (TAPE or MD) for timer recording.**

When selecting timer play
Press the ◄◄ or ►► button repeatedly or turn the MULTI JOG dial to select one of the source names, then press the II button.

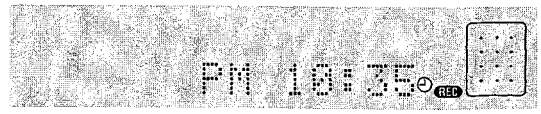
When selecting timer recording
Press the ◄◄ or ►► button repeatedly or turn the MULTI JOG dial to select one of the source and recording source names, then press the II button.
FM (or AM) ► MD : when recording from a radio broadcast on an MD
FM (or AM) ► TP : when recording from a radio broadcast on a tape
AUX (or VIDEO) ► MD : when recording from the connected equipment on an MD
AUX (or VIDEO) ► TP : when recording from the connected equipment on a tape
• Timer recording is applicable for TUNER and VIDEO/AUX (with an external timer) sources only.

5 **Select the duration for the timer-activated period with the ◄◄ or ►► button or the MULTI JOG dial, and press the II button.**

The duration for the timer-activated period can be set between 5 and 240 minutes in 5-minute steps.

6 **Prepare the source and the recording source.**
To listen to a CD, load the disc.
To listen to a tape, load the tape into the deck.
To listen to a radio broadcast, select the desired band and tune in to a station.
To listen to an MD, insert the MD.
To listen to the connected equipment, set the timer of the connected source (with an external timer) and prepare for the play.
To record from a radio broadcast on a tape or an MD, select the desired band and tune in to a station and load the tape or insert the MD.
To record from the connected equipment on a tape or an MD, set the timer of the connected source (with an external timer) and prepare for the play, then load the tape or insert the MD.

7 **Press the POWER button to turn the unit off after adjusting the volume and tone.**
◴ or ◴ REC remains on the display after the power is turned off (timer standby mode).



When the timer-on time is reached, the unit turns on and begins play (or recording) with the selected source.
If the volume level was set to more than 21 when the power was turned off, it is automatically set to 21 when the unit turns on by the timer.

To check the specified time and source
Press the TIMER button while pressing the SHIFT button on the remote control. The selected source name, the timer-on time and the duration for the timer-activated period are displayed for 4 seconds.

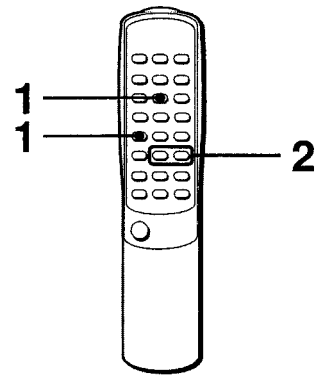
To cancel timer standby mode temporarily
Press the TIMER button repeatedly while pressing the SHIFT button on the remote control so that "TIMER OFF" is displayed on the display.
To restore the timer standby mode, press again to display ⏲ (and REC).

Using the unit while the timer is set
You can use the unit normally after setting the timer.
Before turning off the power, repeat step 6 to prepare the source and the recording source, and adjust the volume and tone.

NOTE

- Timer play and timer recording will not begin unless the power is turned off.
- Connected equipment cannot be turned on and off by the built-in timer of this unit. Use an external timer.

SETTING THE SLEEP TIMER



The unit can be turned off automatically at a specified time.

Use the remote control.

1 **Press the SLEEP button while pressing the SHIFT button on the remote control.**

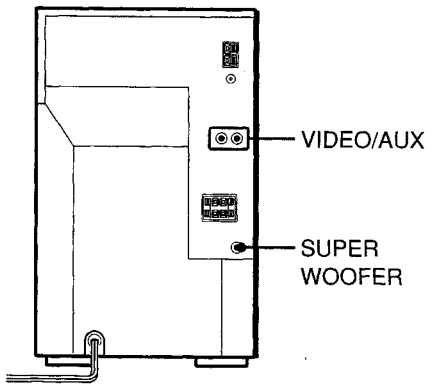
2 **<u>Within 4 seconds</u>, press the ◀◀ or ▶▶ button or turn the MULTI JOG dial to specify the time until the power is turned off.**
Each time the button is pressed, the time changes between 5 and 240 minutes in 5-minute steps.

Specified time

To check the time remaining until the power is turned off
Press the SLEEP button once while pressing the SHIFT button on the remote control. The remaining time is displayed for 4 seconds.

To cancel the sleep timer
Press the SLEEP button twice while pressing the SHIFT button on the remote control so that "SLEEP" on the display disappears.

CONNECTING OPTIONAL EQUIPMENT



Refer to the operating instructions of the connected equipment for details.

- The connecting cords are not supplied. Obtain the necessary connecting cords.
- Consult your local Aiwa dealer for optional equipment.

VIDEO/AUX JACKS

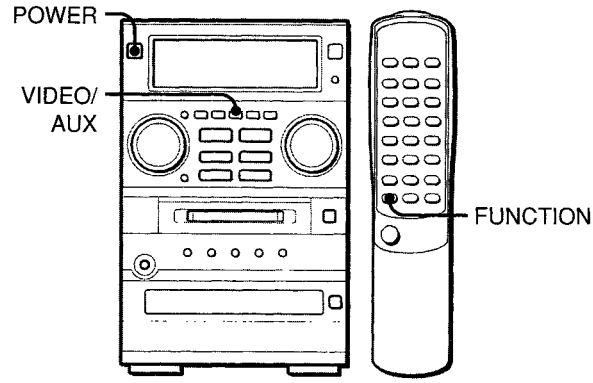
This unit can input analogue sound signals through these jacks. Use a cable with RCA phono plugs to connect audio equipment (turntables, LD players, VCRs, TV, etc.).
Connect the red plug to the R jack, and the white plug to the L jack.

When connecting a turntable
Use an Aiwa turntable equipped with a built-in equalizer amplifier.

SUPER WOOFER ◁ JACK

Connect an optional powered sub woofer with a built-in-amplifier to the jack.

LISTENING TO EXTERNAL SOURCES



To play equipment connected to the VIDEO/AUX jacks, press the VIDEO/AUX button.
When using the remote control, press the FUNCTION button repeatedly until "VIDEO" is displayed.

To change a source name in the display
When the VIDEO/AUX button is pressed, "VIDEO" is displayed initially. It can be changed to "AUX" or "TV".
Turn on the power by pressing the POWER button while pressing the VIDEO/AUX button.
Repeat the procedure to select one of the names.

CARE AND MAINTENANCE

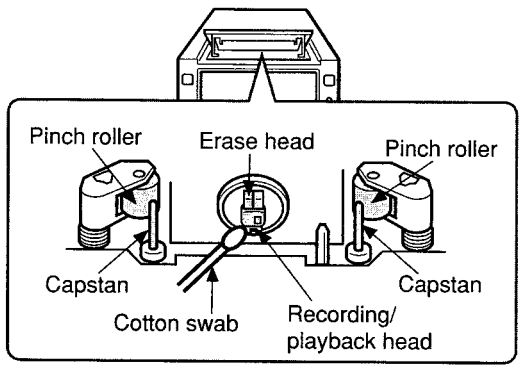
Occasional care and maintenance of the unit and the software are needed to optimize the performance of your unit.

To clean the cabinet

Use a soft and dry cloth.
If the surfaces are extremely dirty, use a soft cloth lightly moistened with mild detergent solution. Do not use strong solvents, such as alcohol, benzine or thinner as these could damage the finish of the unit.

To clean the heads and tape paths

After every 10 hours of use, clean the heads and tape paths with a head cleaning cassette or cotton swab moistened with cleaning fluid or denatured alcohol. (These cleaning kits are commercially abailable.)
When cleaning with a cotton swab, wipe the recording/playback head, erasure head, capstans, and pinchrollers.



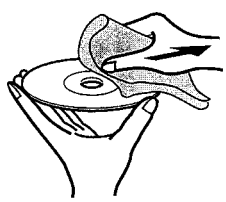
After cleaning the heads and tape paths with a liquid head cleaning cassette, wait until the cleaned parts are completely dry before inserting the tapes.

Care of the unit

- Do not give the unit a strong shock, i.e., drop or hit.
- Do not use the unit close to a strong magnetic field such as a television. Doing so may cause malfunctions.

Care of CDs

- When a disc becomes dirty, wipe the disc from the centre out with a cleaning cloth.



- After playing a disc, store the disc in its case. Do not leave the disc in places that are hot or humid.

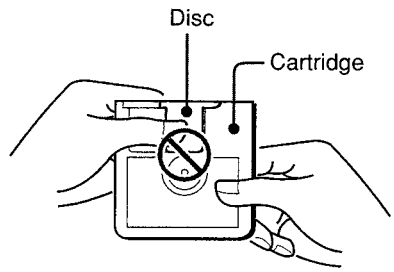
Care of tapes

- Store tapes in their cases after use.
- Do not leave tapes near magnets, motors, television sets, or any source of magnetism. This will downgrade the sound quality and cause noise.
- Do not expose tapes to direct sunlight, or leave them in a car parked in direct sunlight.

Care of MDs

Since MDs come in a cartridge which protects the discs inside from fingerprints and dust, you do not have to be overly careful when handling them. However, soiled or damaged cartridges can lead to malfunctions in the unit. Observe the following tips when handling MDs.

- Keep a cartridge in the attached case.
- Do not open the shutter of the cartridge to touch the disc directly. If the disc inside becomes soiled, it is very difficult to clean. The cartridge can also be damaged.
- Close the shutter if it opens while handling or ejecting a disc. Otherwise dust may enter inside or a disc may become scratched.



MD GUIDE MESSAGES

Message	Cause	Solution
Blank Disc	Nothing is recorded on the disc.	—
Can't Edit	Tracks are too short to be joined up.	See "THE LIMITATIONS OF MINI DISC" on page 15.
	The combine function was used while playing back the first track.	Disabled.
	The divide function is used at the beginning of the track.	
	The combine function was used to join a track recorded in monaural with a track recorded in stereo.	
Disc Error	The disc is damaged by scratches.	Replace the disc.
	The unit received a strong shock during a TOC reading.	Do not subject the disc to strong shock during a TOC reading.
Disc Full	There are not enough time to record remaining on the disc.	Replace the disc with another recordable disc.
Temp Over	The temperature of the unit is too high.	Leave the unit in a cool place for a while before operating it again.
	The surrounding temperature is too high or too low.	Operate the unit at moderate room temperature.
PB Disc	A prerecorded disc is attempted to edit.	Replace the disc with a recordable one.
Protected	The disc is record-protected.	Slide the record-protect tab on the disc. (See page 21.)
TOC Full	There are too many tracks or emphasis data to be recorded or edited, or there is no room on the disc.	Erase tracks.
Mecha Err	Error occurs in the loading mechanism. (All functions will be disabled.)	Turn the power off and disconnect the AC cord once. Then turn it on again. If this message still appears, consult your local Aiwa dealer.
MD Error	An error occurred in the MD unit of this unit.	Contact an Aiwa service representative.
UTOC Error	An error occurred in the TOC of the MD because the unit was subjected to a strong shock during recording, or during recording or reading of the TOC.	Exchange the MD. Do not subject the unit to strong shocks during recording, or during recording or reading of the TOC.

SPECIFICATIONS

MAIN UNIT CX-LMD85

FM tuner section

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

MW tuner section

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

LWtuner section

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

Amplifier section

Power output	Rated: 25 + 25 W (6 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 30 + 30 W (6 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
Inputs	VIDEO/AUX: 400 mV
Outputs	SUPER WOOFER: 1.4 V SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo minijack): accepts headphones of 16 ohms or more

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	CrO_2 tape: 50 Hz – 16000 Hz Normal tape: 50 Hz – 15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, CrO_2 tape peak level)
Recording system	AC bias
Heads	Deck: Recording/playback × 1, erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	90 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

MD recorder section

Scanning method	Non-contact optical scanner (Semiconductor laser application)
Recording system	Magnetic polarity modulation overwrite system
Rotation speed	Aprox. 400 – 900 rpm (CLV)
Sampling frequency	44.1 kHz
No. of channels	Stereo: 2 channels Monaural: 1 channel
A-D, D-A converter	1-bit
Frequency	20 – 20000 Hz +0.2 – –1.5 dB
Wow and flutter	Unmeasurable

SPEAKER SYSTEM SX-LM85

Cabinet type	2 way, bass reflex (magnetic shielded type)
Speakers	Woofer: 130 mm cone type Tweeter: 60 mm cone type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W × H × D)	175 × 275 × 250 mm
Weight	2.8 kg

Gemeral

Power requirements	230 V AC, 50 Hz
Power consumption	70 W
Dimensions (W × H × D)	175 × 275 × 323.5 mm
Weight	5.9 kg

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BBE SYSTEM

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DOLBY NR

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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COPYRIGHT

Please check the laws on copyright relating to recordings from discs, radio or external tape for the country in which the machine is being used.

OBSERVERA

Så länge som apparaten är ansluten till nätet flyter en svag ström genom densamma, även då den är avstängd. Om man under en längre tid ej har för avsikt att använda den, drag då ur nätkabeln.

BEMÆRK

Apparatet er stadig forbundet med lysnettet, så længe stikket er tilsluttet til stikkontakten, selv om afbryteren er slået fra. Hvis apparatet ikke bruges i længere tid, skal netledningen trækkes ud.

En

TROUBLESHOOTING GUIDE

If the unit fails to perform as described in these Operating Instructions, check the following guide.

GENERAL

There is no sound.
- Is the AC cord connected properly?
- Is there a bad connection? (→ page 3)
- Was an incorrect function button pressed?

The sound becomes inaudible or the unit is turned off suddenly.
- There may be a short circuit in the speaker terminals.
  → Disconnect the AC cord from the AC outlet and re-connect the speaker cords correctly. Then connect the AC cord and turn the unit on again.

Sound is emitted from one speaker only.
- Is the other speaker disconnected?

An erroneous display or a malfunction occurs.
→ Reset the unit as stated below.

TUNER SECTION

There is constant, wave-like static.
- Is the antenna connected properly? (→ page 3)
- Is the signal weak?
  → Connect an outdoor antenna.

The reception contains noise interferences or the sound is distorted.
- Is the system picking up external noise or multipath distortion?
  → Change the orientation of the antenna.
  → Move the unit away from other electrical appliances.

CASSETTE DECK SECTION

The tape does not run.
- Is the deck in pause mode? (→ page 13)

The sound is off-balance or not adequately high.
- Is the playback head dirty? (→ page 34)

Recording is not possible.
- Is the erasure prevention tab on the tape broken off? (→ page 12)
- Is the recording head dirty? (→ page 34)

Erasure is not possible.
- Is the erasure head dirty? (→ page 34)
- Is a metal tape being used?

High frequency sound is not emitted.
- Is a tape recorded without Dolby NR played back with the Dolby NR system operating? (→ page 13, 14)
- Is the recording/playback head dirty? (→ page 34)

CD PLAYER SECTION

The CD player does not play.
- Is the disc correctly inserted? (→ page 11)
- Is the disc dirty? (→ page 34)
- Is the lens affected by condensation?
  → Wait approximately one hour and try again.

MD RECORDER SECTION

The MD recorder cannot be operated.
- Is there a disc inside the unit ?
  → Insert a disc.
- Is the lens affected by condensation?
  → Wait approximately one hour and try again.

Sound is noisy.
- Is the unit placed close to an object with a strong magnetic field such as a television?
  → Move the unit away from the television.

Sound is intermittent.
- Is the unit placed on an unstable surface with a lot of vibration?
  → Place the unit on a stable surface with no vibration.

Recording is not possible.
- Is the digital recording attempted from the source other than CD?
- Is a prerecorded disc inserted?
  → Change to a recordable disc.
- Is the disc protected by the record-protected tab on the disc? (→ page 21)

To reset

If an unusual condition occurs in the display window or the cassette deck, reset the unit as follows.

1 Press the POWER button to turn off the power.
2 Press the POWER button to turn the power back on while pressing the ■ button. Everything stored in memory after purchase is canceled.

If the power cannot be turned off in step 1 because of a malfunction, reset by disconnecting the AC cord and repeat step 2.

PARTS INDEX

Instructions about each part on the main unit or remote control are indicated on the pages listed below.

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